1982-83 Annual Report

Alberta
AGRICULTURE

ALBERTA AGRICULTURE'S
ANNUAL REPORT
1982 – 83

TO THE HONOURABLE FRANK LYNCH-STAUNTON
Lieutenant-Governor of the Province of Alberta

Sir:

I have the honor to submit the annual report of Alberta Agriculture for the fiscal year ended March 31, 1983.

I have the honor to be, Sir,

Your Obedient Servant
LEROY FJORDBOTTEN
Minister of Agriculture

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Minister of Agriculture

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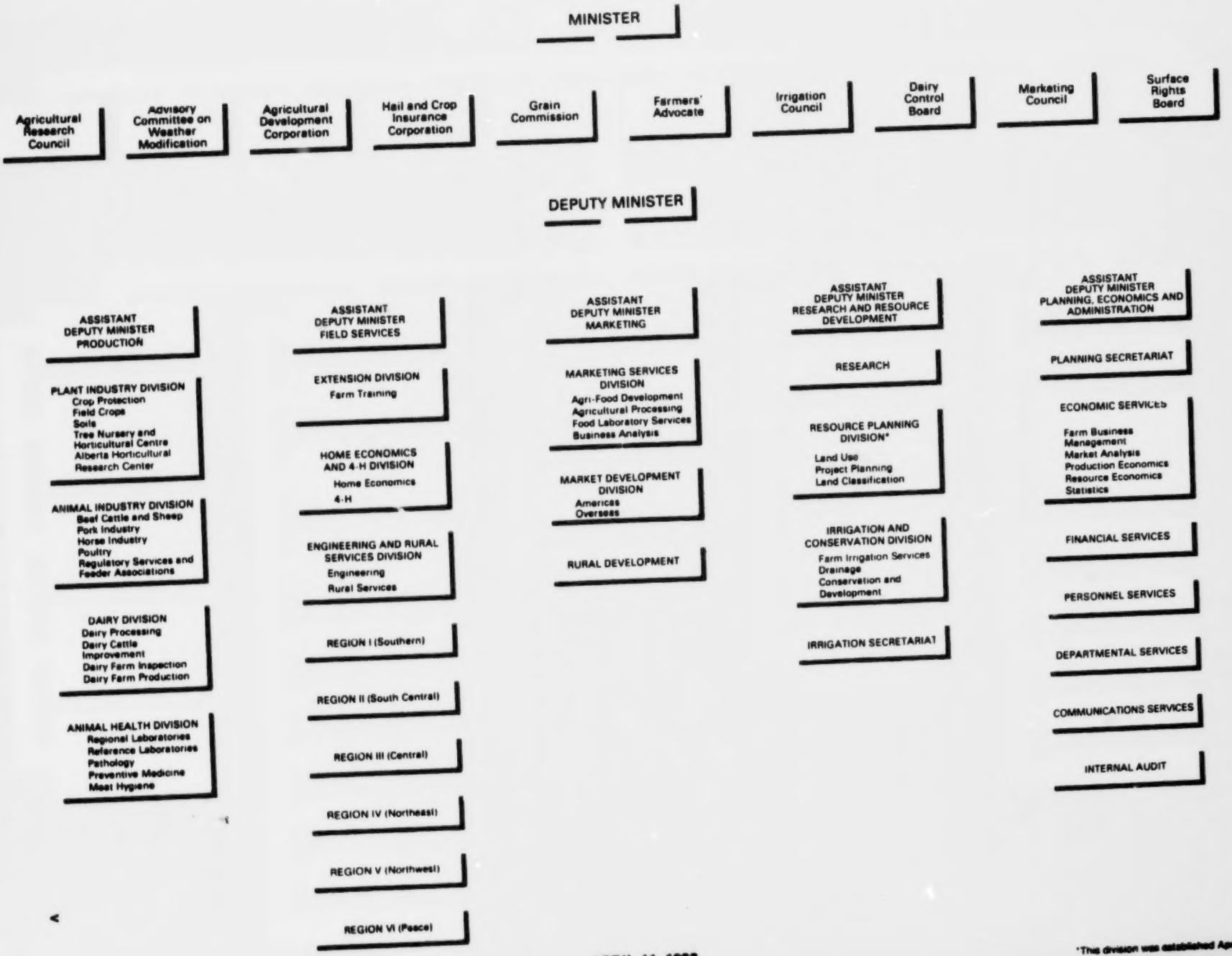
I have the honor to submit the annual report of Alberta Agriculture for the fiscal year ended March 31, 1983.

Respectfully submitted,

H.B. McEwen
Deputy Minister

ORGANIZATIONAL CHART



APRIL 11, 1983

*This division was established April, 1983

Highlights for 1982-83

- The department's organizational structure was changed to improve and better co-ordinate services to farmers, farm families and agribusiness. During the year four sectors were affected by reorganization:
  - — A new sector, research and resource development, was created to replace research and administration. The new sector, which reflected the department's emphasis on agricultural land and water development and use, included research, land use, water management, irrigation and the irrigation secretariat.
  - — The department's administrative functions – personnel, communications, financial services and departmental services – were combined with planning and economics into the planning, economics and administration sector.
  - — The development sector was renamed field services with additional responsibilities to be assigned to the six regional directors.
  - — The marketing sector was formed by combining all the department's marketing services, both domestic and international.
- During 1982-83 Alberta Agriculture operated with a permanent staff of 1,429 and a budget of over $209 million.
- Direct farm lending by the Agricultural Development Corporation declined 9 per cent to $204 million. The corporation approved $23 million for interest reduction to beginning farmers and for special incentives.
- Losses paid by the Alberta Hail and Crop Insurance Corporation were the highest ever, primarily because of severe hail damage.
- During the year 5500 people were enrolled in home study programs offered by Alberta Agriculture.
- Regarding federal proposals to reform statutory freight rates for grain transportation, Alberta Agriculture's planning secretariat and economic services staff led discussion among producers, farm organizations and government.
- The Winnipeg Commodity Exchange opened trading of the Alberta domestic feed barley futures contracts, an experimental project funded by Alberta Agriculture and designed to improve the pricing efficiency of the western Canadian feed grain market.
- The department's emphasis on marketing continued with the publication of the *Grain and Oilseeds Marketing Manual*.
- Programming priority was directed to the cash flow and financial management needs of farmers.
- Response was good to a revised program for upgrading seed cleaning plants, with nearly $897,000 granted to 45 plants.
- The Alberta Tree Nursery and Horticulture Centre shipped 2.2 million seedlings under the shelterbelt program.
- The field crops research section developed and was successful in licensing two feed barley varieties, Abee and Empress.
- The agricultural lime freight assistance program provided $378,000 in financial assistance to 100 producers who moved 13,200 tonnes of lime on Alberta farms.
- Alberta beef cow numbers for January 1983 were estimated at 1.31 million head, down 5.4 per cent from 1982.
- The Alberta Milk Producers' Association entered into an agreement to assume responsibility for the field operations of the dairy herd improvement program in 1984.
- As a result of the warble control campaign, only 7 per cent of beef carcasses were infested with warbles in 1982, down from 14 per cent in 1980.
- About 2,900 pork producers – 45 per cent of Alberta's active pork producers – took part in a market insurance program that established a minimum monthly price.
- The preconditioning program for feeder calves was expanded, with over 8,000 head sold. Preconditioned steers brought an average additional price of $5.56 per hundredweight in 1982.

- District agriculturists reported a record number of client contacts – 350,000 in total. The number of consultations in farm business management rose by 38 per cent over the previous year.
- The 4-H branch served 8,687 members in 556 clubs.
- Eleven new agricultural societies were formed.
- The home and community design branch provided preliminary designs in response to 455 requests, an increase of 100 over the previous year.
- The agri-food development branch granted $2.1 million to assist industry to better meet the needs of domestic and international markets.
- The market development division had a positive influence on approximately $300 million worth of sales in international markets.
- Through the federal-provincial nutritive processing agreement, over $5 million was granted to improve the processing capability in rural Alberta.
- Farming for the Future allocated almost $5.7 million in support of 141 projects under its agricultural research program. A further 61 projects were approved under the on-farm demonstration program.
- A total of 605 agricultural research projects were reported to be in progress in Alberta.
- The number of irrigated acres in Alberta rose to 903,041.

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WEATHER MODIFICATION

In 1982, the government-funded hail suppression cloud seeding program continued to operate within a 130-kilometre circle of Red Deer. Fewer but much more severe hailstorms occurred, with walnut size or larger hail recorded on 13 days. Golfball size or larger hail was reported on 5 of these days.

One major change in the 1982 program was that the seeding operations in the northern project area (between Red Deer and Edmonton) were cancelled as the result of budgetary constraints and the seeding aircraft were reduced from six to four.

Hail occurred on 49 days in the project area, 4 per cent above the 26-year (1957-82) average; 2,431 hail reports were received, 5 per cent below average. In the northern area, hail was reported on 38 days, 3 per cent below average; in the southern area, hail was reported on 40 days, 5 per cent below average. The 1,597 hail reports received from the northern area were 11 per cent above average while the 834 hail reports from the southern area were 32 per cent below average.

Aircraft missions and flare usage were down from 1981 mainly as a result of the reduced seeding area. During the 73 days from June 20 to August 31 cloud seeding was carried out on 29 days.

Using a specially equipped Cessna 441 Conquest aircraft, experiments were carried out on hail, rain, ground generators, weather systems, sulphur, snow and thunderstorms. A total of 112 hours of research flight time was compiled.

The ground generator assessment program completed its second season. Eighty-eight ground-based silver iodide generators operated from June 21 to August 20 in an area south and east of Calgary. A total of 22 research aircraft flights and 44 hours of aircraft time were logged.

The Minister's advisory committee on weather modification met monthly with representatives of the Alberta Research Council to monitor the programs and recommend change.

AGRICULTURAL DEVELOPMENT CORPORATION*

The Agricultural Development Corporation (ADC) was established by The Agricultural Development Act (1972) to provide financial assistance to farmers and agricultural processors in the province. Accumulated loan authorizations during the 11 years from June 1972 to March 1983 amounted to 93,873 loans totalling $1,799,600,000. Of this number, 23,381 loans totalling $921,900,000 were active and outstanding on March 31, 1983.

ADC provided assistance to agricultural enterprises through direct loan financing on a long-term basis, and an extensive loan guarantee program through other lenders to cover short- and intermediate-term financing. In 1982-83 direct farm lending declined by nine per cent to $204.3 million, compared to $224.9 million in 1981-82, and reflected the adverse economic conditions which prevailed during the year. Of these funds, $170.1 million were loaned under the beginning farmer program which decreased by 12 per cent from $193.5 million in 1981-82. Part A and Part B direct loans increased slightly to $34.2 million from $31.4 million in 1981-82. The 1,198 loans made to beginning farmers and the 288 other direct farm loans made in 1982-83 averaged $137,491.

In the 12 months ending March 31, 1983, $80.3 million was made available by other lenders under ADC's Alberta Farm Development Loan guarantee program, and a further $11.5 million was approved as specific guarantees. These guarantee programs assisted the financial needs of nearly 5,600 primary producers.

The corporation approved $23.8 million in incentives to encourage the development and viability of Alberta's agricultural industry by way of interest reduction to beginning farmers and special incentives to specific sections of primary and secondary agriculture. In addition to monetary incentives to individual producers, ADC field staff provided counselling services to farmers through 33,700 field office interviews and 3,500 farm visits.

Assistance to agribusiness promoted the further processing of food and feed products within Alberta, as well as agricultural services. During 1982-83, ADC authorized 51 direct or specific guaranteed loans to agribusiness for a total of $36.7 million. In addition, $3.5 million in guaranteed operating loans was extended. Over-all, agribusiness lending volume reflected a 42 per cent increase over funds loaned in the previous year, with increased emphasis on guaranteed loans.

During the year ADC continued to provide direct term loan assistance to rural gas distribution co-operatives, and eight such loans were authorized for a total of $1.7 million, compared with 20 loans and $3.4 million during the previous year.

The corporation continued its support to the alfalfa processing industry through direct term loans to finance or refinance term debt. In 1982-83 ADC authorized 11 direct and guaranteed loans to alfalfa processors for a total of $5.0 million.

During the year ADC's preferred interest rates remained unchanged. Improvements were made to the beginning farmer program so that incentives were payable on the date of the loan payment. Off-farm employment restrictions were relaxed for beginning farmers and developing farmers for an interim period to help them achieve self-sufficiency.

The Agricultural Development Corporation continued to monitor and review its lending policies and programs in order to be responsive to the changing agricultural credit needs of Alberta farmers and agribusiness.

* The corporation publishes an annual report providing detail of programs, statistical data and analysis of its activities.

ALBERTA HAIL AND CROP INSURANCE CORPORATION*

Alberta farmers, facing high operating expenses and recognizing the need for protecting their production costs, carried a record level of insurance on their grain crops in 1982. The Alberta Hail and Crop Insurance Corporation provided insurance on nearly two-thirds of all grain and oilseed acreage seeded in the province.

The Alberta Hail and Crop Insurance Corporation, a Crown corporation established under authority of The Hail and Crop Insurance Act, offered two types of insurance:

a) Hail insurance – protection against the single hazard of hail;
b) All-risk crop insurance – protection against major loss caused by any of the natural perils including drought, hail, frost, excessive moisture, snow, insects and disease.

The hail insurance program, dating back to 1938 has been entirely self-sustaining with premiums covering both administrative costs and insurance claims. Coverage up to $125 per acre was provided for grain crops and $250 for vegetable crops and sugar beets. The corporation carried 68 per cent of all hail insurance placed in the province in 1982.

Losses from hail were extremely heavy with major storms concentrated in central and southern regions. The loss-to-premium ratio of 115.9 per cent and total indemnities of $17,522,000 were the highest since the hail program was established.

SUMMARY OF HAIL INSURANCE PROGRAM, 1981 and 1982

	1982	1981
Policies	10,621	10,636
Acres insured	3,669,500	3,425,000
Coverage	$262,552,000	$218,548,000
Premium	$ 15,123,000	$ 12,760,000
Paid indemnities	2,361	1,491
Indemnities	$ 17,522,000	$ 6,453,000
Loss-to-premium ratio	115.9%	50.6%

The crop insurance program, established in 1965 as a joint venture of the governments of Canada and Alberta, received one-half of its premium income from the federal government, while all administrative expenses and a high-risk subsidy were paid by the province. This type of insurance was not available from other sources.

Coverage was offered for all major grain crops and a number of specialty crops including seed peas, beans, potatoes, corn and vegetable crops grown for processing. In 1982 coverage was added for alfalfa grown for processing and soft white spring wheat. Another insurance program was set up for honey, which did not qualify for federal support.

Price options for most crops were increased about 8 per cent in keeping with market prospects and the need of farmers for higher levels of coverage.

Losses paid under the all-risk insurance program were also at record levels, mainly as a result of hail in central and southern regions and drought and early frost in the north. Losses were especially heavy under the hail endorsement to the crop insurance policy.

SUMMARY OF ALL-RISK INSURANCE PROGRAM, 1981 and 1982

	1982	1981
Policies	18,521	18,695
Acres insured	7,183,000	7,022,000
Risk	$546,695,000	$484,074,000
Hail endorsement coverage	$461,185,000	$400,669,000
Premium*	$ 70,489,000	$ 65,392,000
Indemnities –		
Basic policy	$ 28,386,000**	$ 13,718,000
Hail endorsement	$ 31,896,000	$ 13,275,000
Total	$ 60,282,000**	$ 26,993,000

* Includes premiums paid by policyholders, the provincial high-risk subsidy, and the matching contribution paid by the government of Canada.

** Preliminary, subject to revision.

Heavy losses were also paid out under the honey program, the first such plan in Canada, as 1982 was an unfavorable year for honey production.

Protection against losses to hay and pasture from drought was again offered on a trial basis in central and southwestern Alberta. This was a weather-based, computer-modelled program under which losses were calculated taking into account available moisture, and temperature and sunlight relative to normal.

* The Alberta Hail and Crop Insurance Corporation publishes a statutory annual report which provides more detailed information than is given in this section.

SUMMARY OF HAY AND PASTURE INSURANCE

	1982	1981
Number of policyholders	729	1,041
Coverage	$6,539,000	$8,462,000
Premium	$ 799,000	$ 964,000
Number of paid indemnities	375	331
Total indemnities	$1,046,000	$ 460,000

ALBERTA GRAIN COMMISSION

The commission continued to review all aspects of the grain industry in Alberta. About 20 policy recommendations were formulated by the commissioners during deliberations at their monthly meetings and were forwarded to the Minister of Agriculture for his consideration.

Liaison was maintained with the Canadian Wheat Board, the Canadian Grain Commission, the grain marketing office in Ottawa, the Canada Grains Council, the Western Grain Stabilization Administration, the Grain Transportation Authority, the railways and the commodity groups throughout the year.

A major focus in 1982-83 was the review of feed grain policy undertaken by the federal government. The commission presented its views to the interdepartmental committee from Ottawa during hearings in Alberta.

In co-operation with Alberta's economic development department and the market development division of Alberta Agriculture, the Alberta Grain Commission examined other routings of Alberta grain to world markets in order to be prepared for whatever changes the federal government might impose in the level of rail freight rates on export grain. The Snake-Columbia bargeway system in the northwestern United States appeared to show the greatest possibility of being able to move additional grain. Accordingly the commission maintained a dialogue with the Canadian grain trade, the commodity groups, and the chambers of commerce and port authorities in the cities on the Snake-Columbia to make all parties aware of the potential of this route.

The commissioners toured the Lake Louise to Revelstoke trackage of the Canadian Pacific Railway to gain a hands-on appreciation of the track upgrading and new tunnelling in the mountains underway in an attempt to increase track capacity.

Trading of the futures contract for Alberta barley on the Winnipeg Commodity Exchange began on February 28, 1983. This was the result of nine years' effort by the Alberta Grain Commission to put in place a pricing mechanism that is apropos to Alberta grain marketing conditions. The commodity exchange reported that the Alberta barley contract was the most successful start-up of any contract in its history.

The proposal to establish a cash grain call market based in Calgary was shelved.

FARMERS' ADVOCATE OF ALBERTA*

The office of the Farmers' Advocate of Alberta reviewed enquiries and concerns, varying in nature, covering every facet of the agricultural community.

ALBERTA DAIRY CONTROL BOARD

The dairy board, operating under the Dairy Board Act, met its responsibilities in administration of fluid milk, industrial milk and cream sectors. These responsibilities included the licensing of dairy producers, processors and distributors of fluid products; setting and adjusting fluid milk quotas; regulating time and payment to producers; and in general governing the sale of milk in Alberta.

The Board was responsible for the operation of the Alberta milk market sharing plan, an industrial milk plan entered into by federal and provincial authorities. The board was a member of the Canadian Milk Supply Management Committee, a body responsible for the development of the national dairy policy.

The number of active dairy producers – fluid milk, industrial milk and cream – as of March 31, 1983, totalled 3,545. The total provincial dairy production was up by 2.67 per cent from the previous fiscal year. Fluid milk production increased by 4.70 per cent whereas industrial milk and cream production decreased by 3.91 per cent and 11.38 per cent respectively. Demand for fluid milk sales levelled off showing a slight decrease of .21 per cent from the previous year.

The board operated a fluid milk equalization pool for Alberta fluid milk producers. This plan successfully completed its eighth year of operation and enabled producers to share in the sales of fluid milk returns regardless of location or source of sales.

The graduated entry plan operated successfully and during the fiscal year 31 industrial producers entered the fluid sector, resulting in a total of 930 graduated entrants since the start of this program in 1975.

Producers' financial returns for fluid milk, industrial milk and farm separated cream advanced at intervals during the year. Fluid milk prices increased $.98 per hectolitre July 1, 1982 and $.98 per hectolitre on February 1, 1983, ending the fiscal year at $46.17 per hectolitre. Industrial milk advanced $1.41 per hectolitre August 1, 1982; $.38 per hectolitre January 1, 1983. Churning cream prices were also increased August and January for total increases of 27 cents per kilogram.

Board staff maintained an audit program of all fluid processors together with inspections to maintain and ensure compliance with regulations issued under the authority of the Alberta Dairy Board Act.

AGRICULTURAL PRODUCTS MARKETING COUNCIL

The council was responsible for the administration of The Marketing of Agricultural Products Act. Pursuant to the act, the council facilitated the establishment and supervised the operation of producer marketing boards and commissions. Seven marketing boards and three commissions operated under the act: Alberta Broiler Growers' Marketing Board, Alberta Cattle Commission, Alberta Egg and Fowl Marketing Board, Alberta Hatching Egg Marketing Board, Alberta Pork Producers' Marketing Board, Alberta Potato Commission, Alberta Sheep and Wool Commission, Alberta Turkey Growers' Marketing Board, Alberta Fresh Vegetable Marketing Board and Alberta Vegetable Growers' Marketing Board.

The efforts of Alberta's marketing boards and commissions in striving for improvement in the economic well-being of producers became even more crucial in light of the general downturn in the economy.

Growth in the demand for chicken decreased somewhat but production levels still experienced an over-all increase within the province. Considerable pressure was exerted on Alberta to join the Canadian Chicken Marketing Agency. This agency, which has jurisdiction in the rest of Canada, sets provincial quota allocations for the member provinces.

* A comprehensive annual report issued by the Farmers' Advocate office is available through the Minister of Agriculture or from the Farmers' Advocate.

The Alberta Hatching Egg Marketing Board experienced a difficult first year of operation as a result of pressures on the broiler chicken market which resulted in a reduced demand for hatching eggs.

The production of commercial eggs in Alberta continued to be restricted at levels significantly below market requirements owing to the inability of the Canadian Egg Marketing Agency to develop an acceptable policy for the distribution of egg marketing quota among the provinces. The cost of production formula used for the pricing of eggs in Canada was the subject of a major review.

The Alberta Pork Producers' Marketing Board continued to function as a compulsory central selling agency in the marketing of hogs to processing plants. The pork producers' market insurance program, administered by the board, was well accepted by producers and proved quite successful in stabilizing market returns to participating producers.

The Canadian Turkey Marketing Agency reduced provincial turkey marketing quota allocations because of lower-than-anticipated demand. This resulted in substantial quota reductions for Alberta turkey producers.

Alberta's two vegetable marketing boards experienced some difficulty in their efforts to expand the vegetable industry as a result of economic pressures on the processing sector.

Alberta's potato producers defeated a plebiscite that would have seen the establishment of a marketing board. The Alberta Potato Commission continued to carry out promotion and research on behalf of the industry.

The Alberta Sheep and Wool Commission continued to aim its activities toward expanding the province's sheep industry.

The Alberta Cattle Commission emphasized market development and promotion as a means of increasing the marketing of beef. The commission, along with others in the livestock industry, expended considerable efforts in attempting to bring about acceptable changes to the Crow rate legislation.

Council assisted the Alberta Sugar Beet Growers' Association in drafting a plan for the establishment of an Alberta sugar beet marketing board.

Council also provided assistance to the Alberta Soft White Wheat Growers' Association and the Alberta Canola Growers' Association in assessing the possibilities of utilizing the marketing legislation for the formation of commissions for their commodities.

Council continued to advise marketing boards and commissions under its supervision of their responsibility not only to their producers but to other sectors of the industry and the public.

SURFACE RIGHTS BOARD*

Under The Surface Rights Act, the board granted operators the right to use the surface of land for mineral development and for the construction of pipelines, power transmission lines and telephone lines; and determined the amount of compensation payable by the operators.

The board held hearings and made decisions with respect to damage disputes and requests for review of annual compensation under board compensation orders and surface leases. It continued to assist in the recovery of money under board orders and surface leases.

The Expropriation Act was administered by the board with respect to expropriations of land authorized under or pursuant to section 29 of The Water Resources Act and The Hydro and Electric Energy Act.

* The board presents a detailed annual report to the Minister of Agriculture each year.

PLANNING, ECONOMICS AND ADMINISTRATION

Alberta
AGRICULTURE

PLANNING, ECONOMICS AND ADMINISTRATION

PLANNING SECRETARIAT

During 1982-83 the planning secretariat was involved in three major issues – Crow reform, stabilization, and the small business and farm interest shielding program. The secretariat also began a significant assignment with respect to review of the department delivery system.

Activities for the Alberta Agricultural Co-ordinating Committee were completed for the 1982-83 year and then transferred to the research and resource development sector.

Activities completed during 1982-1983:

EVALUATIONS:

- Spring Conference 1982
- *The Weekly*
- Green Certificate
- Saskatchewan and Manitoba Beef Stabilization Plans

BRIEFING BOOKS:

- Unifarm Meeting
- Northern Alberta Development Council Meeting
- Agriculture Ministers' Conference

REPORTS:

- Feed Grain Marketing Alternatives
- Beef Grading
- Client Needs for Home Economics Education
- Agricultural Image
- Income Instability in Agriculture
- Part-time Farming
- Two Discussion Papers for the Federal-Provincial Producer Task Force on Stabilization
- Several reports on Crow reform, contributing to the enunciation of Alberta's grain transportation policy
- Alberta's Response to the Western Transportation Initiative

ECONOMIC SERVICES

Economic services changed emphasis this year to more directly address current economic issues identified by the departmental management committee. Program priority was directed toward the cash flow and financial management needs of farmers, transportation needs and concerns, stabilization, technology transfer, land and water management, public and client relations and economic research.

Initiatives were undertaken to review and update agricultural trade concerns in preparation for the 1984 General Agreement on Trade and Tariff agriculture negotiations. In addition, international trade policies and trading practices were analyzed for potential impact upon the development of agriculture in Alberta.

Farm financial management efforts were expanded to meet agricultural needs generated as a result of the current economic climate. Areas receiving major emphasis were information and education relating to financial management, direct consultation with farmers on financial management and the preparation and dissemination of financial management information and services to department staff to help them consult with farmers.

Marketing opportunities and development potentials were addressed in the areas of Crow reform and the development of the Alberta domestic feed barley futures market. These efforts were undertaken in collaboration with other provincial departments in recognition of the benefits of employing a multi-dimensional analysis to development opportunities.

The agricultural economics advisor monitored and analyzed macroeconomic conditions and foreign agriculture policy developments that had a direct or indirect impact on Alberta's agriculture.

Elements dealt with in the past year included the 1982 General Agreement on Tariffs and Trade (GATT)

ministerial meeting, Canada/Alberta agriculture trade issues, the United States' grain embargo, Canadian trade legislation, United States' trade measures such as the meat import quota, dumping and countervail claims. The advisor participated in the inter-departmental group on trade policy.

Preparation and input began regarding the 1984 GATT negotiations.

Farm Business Management Branch

The farm business management branch continued to develop and adapt farm management technology for use by farm families in making business decisions.

Increased emphasis was placed on development and distribution of financial management information to meet increasing client needs.

One new position was added to the financial management section to provide information to aid farm managers in more effective credit management. Other section activities supported sound decision making in tax management, labor management, business arrangements and estate planning.

Provision of information to Alberta farmers through agribusiness was assisted by organization of the agricultural workshop for lenders (100 attended this five-day workshop) and the advanced farm estate planning seminars for accountants and lawyers (106 attended one-day sessions in Grande Prairie, Camrose and Calgary).

Branch staff conducted a financial management course for Agricultural Development Corporation staff and prepared regional courses for other Alberta Agriculture staff for fall, 1983.

Information distribution was increased through effective use of *Agri-News* releases, back-up information for *Country Guide* articles, preparation of factsheets and *Country Guide* inserts and publication distribution.

The farm planning section increased its information to farmers and others regarding applications of microcomputer technology. In addition to answering 50 telephone or mail enquiries per month, section staff instructed 10 courses of two to three days' duration, made 25 one-day presentations at seminars, conducted 20 computer display road shows, organized the microcomputer section of the seminar Managing Agricultural Technology for Profit, and distributed 25-40 disks per month of Alberta Agriculture programs. Staff also researched, wrote and distributed the monthly newsletter *Compufarm* to a subscriber list which doubled from 800 last year to 1600 at March 31, 1983.

In a joint project with statistics branch, the farm planning section expanded the contact list for the custom rate changes survey to over 1,000 names. The 1983 edition of *Farm Machinery Costs as a Guide to Custom Rates* was prepared and printed. The increased printing run of 10,000 copies met a brisk demand.

Section staff assisted the dairy division by counselling dairy farmers in financial difficulty.

The farm records and analysis section continued to encourage the use of farm records as an aid in decision making, shifting emphasis to financial analysis of those records. The 1983 edition of the *Save-All Management Planning Calendar* had a revised format which allowed an increased distribution of 12,000 copies (7,500 in 1982) at no additional cost.

The distribution of 9,302 financial record books (*Income and Expenses Basic Records for Alberta Farmers* and *Prairie Provinces Farm Account Book*) was a marginal increase over the previous year. *Farm Management Data Manual* subscriptions increased by 430 during the year to 1,730 at year end.

Although attendance at the sixth Managing Agricultural Technology for Profit seminar in Banff was down to 393 from 440 in 1982, more first-time attenders were present, and over-all ratings improved in response to the financial management topics included.

Market Analysis Branch

The objective of the market analysis branch was to provide farmers in particular and the agricultural sector in general with timely and pertinent market-related information on which to base production and marketing decisions.

The branch continued to monitor and analyze agricultural commodity and product markets. The information gathered provided the branch with data with which to prepare market situation and outlook reports, to interpret policy and other developments related to agricultural markets, to offer marketing extension courses and to provide market news and information.

The branch prepared comprehensive reports on market prospects for the full spectrum of farm

commodities produced in the province. The information was made available to over 4,000 farmers, members of the legislature, and others through the *Market Situation and Outlook* reports. Information was further distributed through the branch's commodity publications such as *The Alberta Processed Alfalfa Market Newsletter, Alberta Dairy Market Newsletter, Canadian Egg Market Newsletter* and through publications of other branches such as *Sheep Footnotes*. Specific situation and outlook reports were prepared at the request of both in-house and outside clients.

The branch continued its extension program to give farmers a more thorough understanding of the functioning of the market and to provide them with market information on which to base business decisions. Branch staff produced a *Grain and Oilseeds Marketing Manual* with assistance of regional economists. A major market extension program was continued in conjunction with the Alberta Canola Growers' Association. The branch worked closely with regional farm economists with the aim of getting the extension program to a larger audience than could be reached by branch staff alone. The branch staged two outlook conferences. Taking Stock in October provided farmers with market prospects for livestock, while Accent '82 in March provided farmers with market outlook information on which to base their seeding decisions.

The branch also disseminated market news and short-term analysis through *The Weekly Livestock Market Review* and *The Weekly Market Grains and Oilseeds Review* which were mailed to about 9,000 producers. These were supplemented by daily market reports. *The Monthly Livestock Slaughter Summary* and the weekly livestock and grain market chart service were published to supplement the regular market news publications of the branch. A computerized agricultural market data base, AGDATA, was maintained to facilitate internal research activities and for public use.

Production Economics Branch

The primary objective of the production economics branch was to provide producers with farm input information so that they could use their resources in the most economically efficient manner. Toward this end, the branch undertook several research projects to refine, expand and update its data base on farm investments, transportation costs, farm production, and production costs and returns for a variety of farming enterprises in Alberta.

The regional farm enterprise research program was continued for a third year in the Vermilion region. Fifty-four producers were visited to obtain detailed information on production costs and returns for different farming enterprises and management skills. A key objective of this project was to acquaint producers with record keeping, alternative farming systems, and input costs and returns to help improve their farming performance. Study results were reviewed with each participant and advice was offered in problem areas. A similar project involving 21 producers was undertaken in the Barrhead region.

Work commenced with a small number of beginning farmers in the Vermilion region, to evaluate their farming performance and to provide them with physical inputs, and input costs and returns data, so that they could compare their farming performance with established producers in their region. Information obtained through this project was shared with personnel of the Alberta Agricultural Development Corporation.

A survey was taken of 53 growers of potatoes, and fresh and processing vegetables to document production costs and returns.

Production costs returns data were collected from 51 sugar beet growers in the second year of a three-year economic study of sugar beet production in Alberta.

The publication *1982 Farm Machinery Costs* was completed and distributed. This publication provided farmers with the most recent information on operating and ownership costs of farm machinery and equipment used in western Canada, and also served as a framework for evaluating the costs of a variety of machinery options.

The study on the economics of hog production in Alberta, initiated in 1980, was continued. Each participant received a detailed analysis of his hog operation together with regional, size and provincial averages for comparison. Field work was undertaken for the 1982 production year.

The branch initiated a three-year study on the economics of sheep production in Alberta. About 200 sheep producers in the province were surveyed to obtain 1982 investment, production, costs and returns data.

The branch continued to monitor fluid milk production costs and returns, and assisted the Public

Utilities Board in establishing monthly fluid milk prices. The average producer price for fluid milk increased from $42.66 per hectolitre in 1981 to $44.54 per hectolitre in 1982, an increase of 4.4 per cent.

After completing the three-year study of the economics of beekeeping in Alberta, the branch retained 20 commercial apiarists to provide 1982 production costs and returns data.

The branch, in co-operation with the farm structural engineer in Lethbridge, published a report documenting the capital and operating costs of some modern potato storage facilities in Alberta. Such costs could be used by growers planning new storage facilities or renovating existing facilities.

A study on the use of energy by farm trucks in Alberta commenced in co-operation with the resource economics branch.

Twenty-three consensus research data reports (CRDs) were published and distributed to producers and agribusiness. These economic reports provided information on machinery requirements for particular farms, and expected receipts and expenditures for different crops, livestock and farming systems.

The branch continued to provide its clients and government agencies with transportation costs, transportation policy developments and freight rate changes for a wide variety of agricultural commodities transported by rail, truck and air. Changes in rail and truck freight rates, and announcements of federal and provincial government policies affecting agricultural commodities were reported in the quarterly newsletter *Agriculture Transportation*.

Since the federal government announced its reform of the statutory Crow rates, the branch was involved in several Crow-related activities by assisting with briefing meetings. Three issues of the newsletter *Grain Handling and Marketing* highlighted Crow developments and initiatives.

The branch initiated a study to compare the use of aircraft, air seeders and conventional ground implements in seeding, spraying and fertilizing crops.

Regional Economic and Business Services Branch

During 1982-83 the branch intensified, refined and developed its extension education and applied research in all aspects of farm economics from marketing to basic farm accounting.

The main clients were farm families, agribusiness, other government agencies, colleges, universities and Alberta Agriculture staff. Ten regional farm economists offered programs and services to match the needs of each of the six regions in the province. They also spearheaded the delivery of programs developed by the other branches of economic services.

Branch staff offered information through individual consultation, seminars and workshops for producers, radio, television, newspapers, displays and meetings of professional agrologists and economists.

Branch staff found themselves increasingly involved in counselling farmers in financial difficulty, counselling members of multi-family farms on estate planning during transition of the farm business from one generation to the next, and counselling dairy farmers on financial management. Branch staff were also involved with the government's interest shielding program.

Financial management topics covered during the past year included farm accounting, analysis, cash flow and capital budgeting, tax estate planning, credit, investment strategies, business arrangements, buy-lease-rent options and machinery management.

Marketing extension programs were co-ordinated by two regional economists. They covered basic principles, analysis, marketing alternatives, forward contracting and hedging.

The branch worked in co-operation with commodity groups such as Western Barley Growers' Association, Alberta Feed Grain Users' Association and Alberta Canola Growers' Association. Assistance to the latter group consisted of presentation of marketing seminars and workshops.

Applied resarch included:

- Regional enterprise cost summaries.
- Development of a computerized enterprise cash flow analysis.
- Feasibility studies on farm and enterprise systems.
- Water and land use resource studies in conjunction with other branches, divisions and departments.
- Marketing and transportation alternatives and market information data presentation.
- Studies of the cost of production for irrigated crops and irrigation systems.

Branch publications included *An Economic Comparison of Wintering and Packaging Bees in the*

Peace River Region, Economics of Summerfallow, Stubble and Cropping in the Peace River Region, Southern Region Dryland Crop Choices and enterprise cost and return and break-even studies (CRDs).

Branch staff gathered regional industry resource statistics for market research use.

Main frame and microcomputers were used increasingly to more effectively deliver branch programs and counsel. Interest in this area led to branch staff giving talks and presenting papers on the use of microcomputers on the farm at major provincial and national conferences.

Resource Economics Branch

The resource economics branch continued to assess specific problems and concerns of agriculture related to the development and use of water, land and energy resources. Branch programs focused on the analysis of resource development and management; and on the collection and analysis of data for planning purposes and use by other branches, departments, agencies and individuals.

Studies in the area of development analysis included projects which concentrated on the development and use of irrigation water, and the potential for agricultural land expansion. The first study was carried out in co-operation with the regional economist at Lethbridge and the department of the environment, to examine farm returns to various levels of irrigation. The second study examined the potential for agricultural expansion in Northern Alberta. This study analyzed the costs and returns expected from the development of 250,000 acres of forested land for agriculture, compared with maintaining the forest in its current state. A third study, in conjunction with the engineering and rural services division, focused on the potential use of slough water in the home, industry and agriculture.

Other projects included a study dealing with reclamation of saline soils, and a study of farm benefits from irrigation system rehabilitation. The branch examined the potential for new farmers in Northern Alberta.

Studies examined activities of other industries in Alberta and their effect on the agricultural industry. Projects included an update of the effect of well-sites, and other man-made obstacles and their service infrastructure on cost of production and the value of property. Staff reviewed literature on the reclamation of lands disturbed by coal mines, powerlines and pipelines for the Red Deer Planning Commission, and prepared a report on the effect of surface reclamation of coal mining sites on the average consumer's monthly power bill. A paper was prepared reviewing research on multiplier analysis – the economic impact of agricultural projects.

Branch staff were involved in a number of planning exercises during the year. These included an improvable land study and a water management study in Regions 3, 4, 5 and 6. The former study measured the area of improvable land within areas designated for cultivation or pasture. The latter study examined the importance of sloughs and other water bodies, and their drainage potential for agricultural use. The branch submitted a proposal with public lands, energy and natural resources, for grazing and recreational development of the Blackfoot regional plan. The branch helped to plan an agricultural land base study and provided information requirements for the economic aspects of this study.

A number of reports were prepared for information and planning. These included: an update of an inventory of agricultural land conversion for 1981, real estate values quarterly and annual reports, and a report comparing the values in those reports with actual market sales. Studies were also done on the impact of 80-acre sub-divisions and multi-parcel country residences. Farm land index data were prepared for Alberta Municipal Affairs.

The branch updated economic factors in the farm land assessment manual produced by municipal affairs.

Statistics Branch

The statistics branch provided agricultural statistical information services to Alberta's agricultural industry including farmers, farm organizations, agribusiness and government.

Staff members maintained a close liaison with Statistics Canada, Agriculture Canada, farm and business organizations and other government departments. The branch completed several surveys but only when other sources were nonexistent or inadequate.

The annual *Statistics Yearbook* was released in August. This document contained a summary of agricultural data for the previous year. It was

supplemented throughout the year by releases on current agricultural statistics.

A crop report was released every two weeks from May to October with a summary published in December. A quarterly forage report supplemented the crop report.

An annual survey of beekeepers was conducted. It estimated the number of beekeepers, number of colonies, average yield and total production of honey in Alberta.

A one-page factsheet presenting major provincial agricultural statistics was issued.

The branch continued its involvement in price collection and reporting by releasing three reports: weekly average retail food prices for Edmonton and Calgary; weekly producer, wholesale and retail food prices; and monthly average farm input prices in Alberta.

The branch continued to improve available data and information on agricultural goods coming into Alberta and those leaving the province.

The branch continued to document information on agricultural products after they leave the farm gate. Products studied were milk, bread and beef. A report on milk price spreads was released.

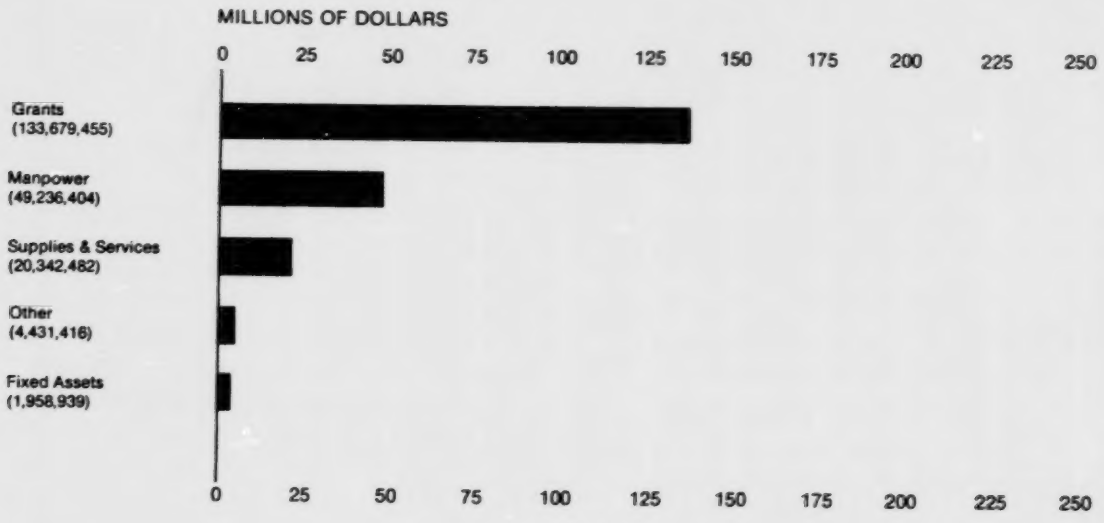
Branch staff conducted a specialty crop survey to obtain additional information on acreage and yields of specialty crops in Alberta. Summaries of the results were sent to producers who co-operated with the survey.

FINANCIAL SERVICES

Financial services was responsible for:

- the processing for payment of all expenditures incurred by the department
- the collecting and depositing of all departmental revenue
- the budgeting and other financial matters relating to the department
- the operations of the departmental mailroom
- the purchasing of all materials, supplies, and equipment for the department
- the processing of the department's payroll
- the inventory control of the department.

TABLE OF EXPENDITURE CONTROL SERVICES 1982-83 (UNAUDITED)



DEPARTMENT OF AGRICULTURE EXPENDITURES 1972-83

(Millions of Dollars)

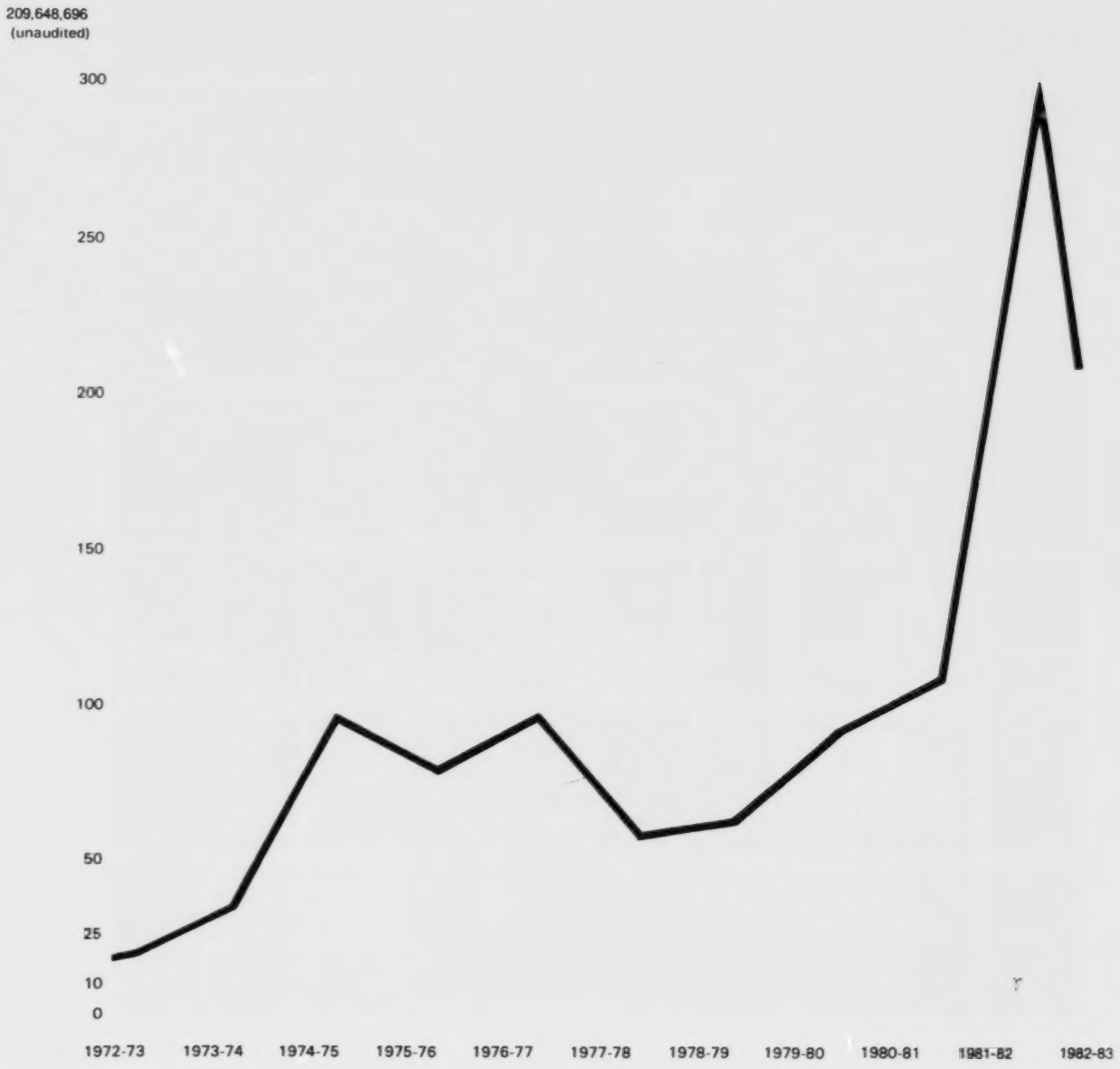
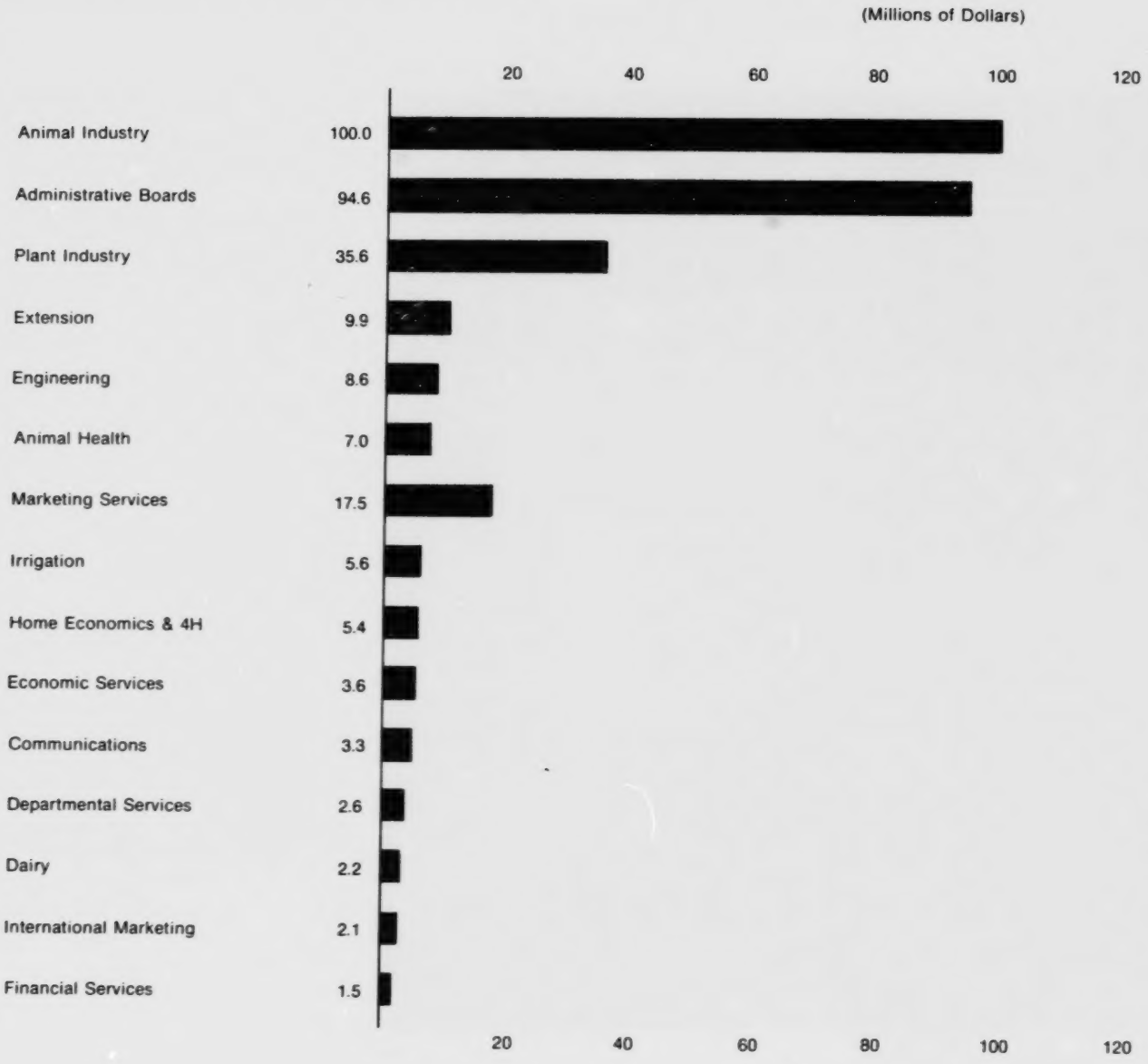


TABLE OF EXPENDITURES 1982-83 (UNAUDITED)



PERSONNEL ADMINISTRATION

Personnel administration developed and administered policies for the department in the areas of staff development, occupational health and safety, and personnel services. These programs supported management in the achievement of departmental aims and objectives.

Staff development provided management advisory services and human resource development co-ordination to ensure that job-related learning experiences were available for all staff. The provision of advice in the management process and organizational development was also a major responsibility.

Personnel administration staff processed 15 applications for education leave and 1,212 applications for training courses of which 440 were in-service, 403 out-service and 369 in-house. A pilot evaluation was conducted into computer based training using the Plato terminal. The branch developed *The Joining Handbook* as part of an orientation program for new employees.

Occupational health and safety provided programs to meet the requirements of The Occupational Health and Safety Act to ensure a healthy and safe work place.

As a result of a review initiated by the department and the Public Service Commission's occupational health and safety unit, the Joint Worksite Health and Safety Committees were reorganized.

Numerous occupational health and safety concerns were investigated and resolved during the year. The semi-annual newsletter *Speaking of Safety* was also published and made available to all employees.

Occupational Health and Safety Program Statistics 1982-83

Total possible manhours	3,230,968
Lost time injuries	39
Medical aid cases	67
Fatalities	0
Frequency rate	12.07*
Severity rate	160.63**
Work days lost	519
Direct costs paid out by the Workers' Compensation Board:	
Compensation of wages	$64,958.11
Medical costs	$43,519.12
Pension awards	$79,570.90
Average award per claim	$ 1,774.04

* Frequency rate is the number of injuries per million manhours.

** Severity rate is the number of work days lost per million manhours.

Personnel services provided recruitment and selection, position classification, employee relations services, wage and salary administration and participation in staff training in order to strive for the best possible staff complement for the department.

The program of decentralization of classification authority was phased in during the 1982-83 period. The department reviewed the laboratory technician and livestock inspection officer classes, which resulted in the regrading of these two classes.

As a result of the economic downturn, the university recruitment program for district agriculturists and district home economists was altered in that a review of possible candidates was considered; however, no job offers were extended.

Personnel Services: Transactions for the Period April 1, 1982 to March 31, 1983

Number of competitions	111
Commencements	148
Terminations	114
Transfers	30
Reclassifications	170
Classification appeals – upheld	22
– denied	3
– pending	0
Updates	112
Position creations – permanent	7
– temporary	53

The management sub-level committee processed 14 requests for review, with eight granted and two turned down. The committee also reviewed four managerial positions to align proper classification.

The personnel officers assisted with a review of the performance appraisal workshop and designed a program to assist line managers in this area.

Regarding negotiations for the Master Agreement and Divisional Agreements which were effective April 1, 1982, staff participated directly with Divisions 2 and 11 as a resource to the government negotiators. The personnel officers held training sessions with the division directors and branch heads regarding the amendments to the Master Agreement.

Three formal grievances were lodged with the department. One, concerning the dismissal of an

employee, resulted in the reinstatement of the employee. Two other employees were reviewed and coached on their poor performance. Another employee utilized the formal grievance procedure, and steps one through three resulted in a denial of this performance-related grievance.

Permanent Positions as of April 1, 1982

Divisions	Clerical	Professional	Technical	Others	Total	%
General Administration	6	6	–	1	13	.9
Research and Operations	63	35	4	3	105	7.3
Personnel Administration	10	9	–	–	19	1.3
Planning and Research Secretariat	2	8	–	–	10	0.7
Farmers' Advocate	2	3	–	–	5	0.3
Surface Rights	12	16	–	–	28	2.0
Irrigation Division and Secretariat	16	36	75	3	130	9.1
Dairy Division	10	39	–	2	51	3.6
Animal Industry	29	90	9	1	129	9.0
Animal Health	20	76	37	1	134	9.4
Dairy Control	8	6	–	–	14	1.0
Plant Industry	32	87	62	7	188	13.2
International Marketing	5	15	–	–	20	1.4
Marketing Services	17	53	14	–	84	5.9
Economic Services	21	54	5	–	80	5.6
Engineering and Rural Services	8	32	6	2	48	3.4
Extension	134	122	1	5	262	18.3
Home Economics & 4-H	9	98	–	2	109	7.6
Department Totals	404	785	213	27	1429	
Percentages	28.3	54.9	14.9	1.9		100.0

OTHERS: Duplicating equipment operators, audio-visual aids technicians, bindery equipment operators, stockkeepers, automotive equipment operators, mobile drill operators, on-line data processing operators, automobile mechanics, motion picture photographers, artists, and maintenance service workers.

DEPARTMENTAL SERVICES

Computer Services Branch

The computer services branch continued to provide the maintenance, development and optimal use of computerized systems within the department.

Ongoing systems included dairy herd improvement, dairy farm inspection, fixed assets inventory, cattle brand retrieval, shelterbelt distribution, veterinary information retrieval, soil and feed testing analysis, vehicle expense system, farm business analysis, departmental mailing labels, the departmental telephone directory, budget information system and apiculture registry.

Development continued on a soil information system (a joint federal/provincial effort), a herbicide recommendation system, a weed alert system, a veterinary laboratory reporting system, a reporting system for Farming for the Future, a financial planning system for market development, an agricultural processing industry directory system and a financial administration system.

The branch continued to provide service to department staff in the areas of statistical analysis, mapping and graphics, procurement of hardware and software, data entry, the administration of the electronic data processing central funds and the management of word processing services.

The branch provided systems development and administration support to the Alberta small business and farm interest shielding program. The branch also participated in special departmental projects which included:

- the communications systems task force
- the continuing development of Alberta Agriculture programmed access to communications (AAPAC)
- the initial stages in the development of a province-wide electronic mail network
- the establishment of electronic mail between the Minister's office and the department headquarters
- a microcomputer training and evaluation project.

Library

The library continued to meet its responsibilities for the planning, development, implementation and co-ordination of library services and programs for department staff. The agriculture library system consisted of a main library, a major branch library at the Alberta Horticultural Research Center, branch libraries in each of the six regions and office collections in six decentralized offices. A workshop was held in Edmonton for branch library support staff in October.

When the library moved to expanded premises in the new agriculture building early in 1983, the branch library in the O.S. Longman Building was merged with the main library. Reading rooms were established for laboratory staff in the O.S. Longman Building.

In 1982-83, the library assisted in 154 major projects, provided information support for 981 short searches and answered several thousand general inquiries. In addition to these reference services, interlibrary loans continued to be a high service area. Also under the reference program, a review of the literature on food irradiation was prepared.

Through the library central funds program, the library continued to order all books and paid subscriptions required by staff throughout the province. SCITECH, the automated library cataloging system of the agriculture, environment and Alberta Research Council libraries, continued on schedule with the existing catalogue records all converting by March 31, 1983. The library continued to use UTLAS to create the file; records were converted to the SPIRES data base management system at the University of Alberta.

Library Recent Additions continued to be distributed widely in the department and to external offices on request.

As a special project the *Agriculture Conference Proceedings Index 1979-81* was published. This publication indexed proceedings to 40 local conferences, thereby improving access to this agricultural data for agrologists.

COMMUNICATIONS

Communications provided information, publicity and media backup service for Alberta Agriculture programs and policies. Support for research, production and marketing was emphasized. Publicity and organizational support for special events was extended to producer groups and agricultural organizations. Production of federal-provincial media projects was maintained through participation in the Canadian Committee on Agricultural Communications.

Print Media Branch

The branch provided editorial, publishing and distribution services to meet the expressed needs of the department and its related boards and agencies.

In addition to major releases, a weekly news release package, *Agri-News*, provided 441 articles to 203 media facilities and 3,835 other recipients. A listing of new and revised publications was distributed monthly to individuals and organizations in agriculture. Twenty-nine different newsletters and reports were printed and distributed to the public regularly. Requests for information from farmers, students, corporations and other governments were processed.

Nine hundred different publications on agriculture, home economics and home gardening were available to the public from the print media branch and district offices. Two hundred ninety-five new and revised publications were written, designed, edited and printed for general distribution.

There were 390 printing jobs placed with commercial printers. The duplicating shop produced 19.6 million pages.

Timely recommendations on production techniques were sent monthly to more than 40,000 commercial farmers by means of an insert in the Alberta edition of the *Country Guide* magazine.

Staff graphic artists were responsible for 167 design jobs for the department's printed and audio-visual materials.

Broadcast Media Branch

"Call of the Land", a 10-minute agricultural radio broadcast, was aired weekdays on 14 AM stations and a number of FM stations to a daily listening audience of over 65,000. Twenty-one clips each 45 seconds long were sent to Alberta radio stations. These items were written for an urban audience.

Three 30-minute television productions were aired throughout Alberta. They were "Research – Improving the Odds," "The New Breed," and "The Reason Why." Eight news clips, seven public service announcements and 10 extension films were produced. Six 15-minute programs aimed at 6 – 8 year-old children were co-produced with ACCESS Alberta. In addition, three films were contracted to Alberta film producers.

Over 5,000 films and slide kits were loaned from the film library. Eleven slide kits were produced internally to support the department's marketing program and extension services. Fifty-five new films were added to the film library.

Two audio visual workshops were held for extension staff and broadcast media staff participated in a radio workshop for new extension staff.

Home Study Program

The primary purpose of the Alberta Agriculture home study program was to disseminate comprehensive educational material to the agricultural industry in general and the farm operator in particular.

One new course, *The Grain and Oilseeds Marketing Manual*, was produced and distributed. Following a multi-media advertising campaign in the winter, the Alberta animal health course and the Alberta farm buildings course were delivered in three regions. In addition, there was considerable province-wide promotion of existing courses. Total enrolment last year was 5,500 students. Accompanying course delivery were in-service training sessions, and regional and district producer seminars.

Developmental activities included a rewrite of the pork production course, plans to develop an Alberta dairy management course and agricultural application of microcomputers, and a producer survey to assess needs for new comprehensive educational materials.

The co-ordination of special events included provincial participation of World Food Day, Agriculture Week activities, the Agriculture Hall of Fame banquet and an agricultural tour for the urban press.

PRODUCTION

Alberta
AGRICULTURE

PRODUCTION

PLANT INDUSTRY DIVISION

The plant industry division was composed of five branches pertaining to all aspects of crop production and some related disciplines. The division provided assistance to crop producers in all aspects of agronomic and cultural practices. These services were provided through extension, research and development and problem diagnosis.

Field Crops Branch

In 1982 77 municipal seed plants processed 31.1 million bushels, an increase of 2.3 million bushels over 1981.

A revised seed plant program was developed. The response to this program was a significant increase in requests for upgrading grants.

Forty-five grants worth $861,898.64 were made for upgrading seed plants. In the previous year, 27 grants worth $186,951.99 were issued.

A new plant costing $1,132,000 was completed at St. Paul to replace the one that burned. Replacement plants were approved for construction at High Level, Sexsmith and Carstairs during 1983-84.

A design for a modular seed plant was completed and made available for the use of any local association.

A survey of 324 canola and barley growers was carried out to examine their cultural and agronomic practices. The data were analyzed and results of the survey widely distributed in the publications *Canola Production Survey Results* and *Barley Production Survey Results*. The manual, *Barley Production in Alberta*, was also prepared incorporating the practices of top producers and research information. This information led to a demand for 48 producer and industry meetings on these subjects.

Alberta had approximately 1,000 members in the Canadian Seed Growers' Association, who grew 64,300 hectares of pedigreed seed. SeCan Association had 1,700 members of whom 350 were from Alberta. SeCan handled 94 varieties.

Two feed type barley varieties developed by the research section received licences: Abee, a two-row, and Empress, a six-row. Research was also involved in winter wheat and triticale selection and agronomic research. Upgrading of Alberta Agriculture's research farm at Lacombe was completed.

New guidelines were developed to ensure the quality and adaption of seed purchased by the Alberta government for its client departments. Quality monitoring procedures were also established.

An extensive review of the regulations under the Canada Seeds Act was undertaken.

The Canada-Alberta Canola Research Agreement became operational. The aim of this program was to develop canola varieties for the Peace River area and for southern Alberta's irrigated and dryland areas.

The branch financed the forage varietal testing program at Beaverlodge.

The Alberta Agriculture Research Station at Lacombe, which had 240 acres of arable land, was involved in other testing and research:

The Alberta Cereal & Oilseed Regional Trials	**36 location(s) – 27 acres**
Forage Testing	**10 location(s) – 20 acres**
Winter wheat and triticale (Alberta)	**2 location(s) – 4 acres**
Winter wheat and triticale (Oregon, U.S.A.)	**1 location(s) – 1 acre**
Special Crops – yield trials.	**5 location(s) – 4 acres**
– green manure	**2 location(s) – 65 acres**
– silage	**2 location(s) – 80 acres**
Feed Grain Breeding (Alberta)	**10 location(s) – 150 acres**
Feed Grain Breeding (Mexico)	**1 location(s) – 5 acres**

Alberta's eight forage associations provided an excellent vehicle for technology transfer.

The set-aside program in the United States absorbed most of the surplus clover and alfalfa seed in western Canada.

The clover plowdown campaign reduced the summerfallow acreage, especially in the Peace River area.

The format for a school of seed technology was finalized at Olds College.

The forage section continued its extension program with emphasis on pasture management and improvement. A forage specialist was employed for the east-central and northeast regions of the province to further increase forage productivity.

Priority activities and topics included alfalfa production, pasture management, silage, plowdown, weeds and soil fertility.

Staff held 26 forage production seminars attended by 1,800 farmers.

Demonstration field plots were conducted with co-operation from forage associations, district agriculturists and agricultural service boards. Co-operative studies were conducted with various research and development institutions on soil organic matter and seedling weed control in forage stands. On-farm demonstrations were held on pasture management projects, field testing of a forage harvester and data collection for micronutrient study in forages.

Forage varieties and species were tested in different regions to keep growers up-to-date on regional adaptability. These tests were sponsored by Farming for the Future.

Increased interest in pasture improvement and management was developed through forage associations. Six associations began developing demonstration pasture projects to maximize beef production by rotational grazing. Regional specialists and district agriculturists initiated 16 more pasture projects under Farming for the Future to further demonstrate pasture management.

In the forage seed project, 107 applications totalling 10,250 kilograms of forage foundation seed were distributed to private seed growers.

Special crops acreage increased again in 1982 to about 14,500 acres. Three pulse crops – fababeans, lentils and field peas – showed significant gains in acreage. Canary seed, corn and mustard also increased in acreage.

An Alberta fibre flax agronomy study was undertaken in 1982. Data gathered stimulated an expansion project in 1983 and an Alberta-based industry for fibre production is a possibility as a result of this work.

Technology transfer programs for 1982 included corn, confectionery and oil sunflowers, all pulse crops, pulse inoculation, canary seed, triticale and fibre flax.

Two pulse crops tours, one corn tour and one sunflower tour attracted 350 participants. Beside the tours, 27 seminars were conducted during the year, attended by 510 producers.

The past year was, in general, good for cool season crops but poor for warm season crops. Corn yields were less than the previous three-year average.

Alberta Tree Nursery and Horticulture Centre*

A severe winter, dry spring, cool summer, and cold autumn resulted in a poor year for the production of woody ornamentals. The record snowfalls in February and March, 1982, coupled with the unusually cool April, delayed the spring start-up of nursery activities. As a result, the distribution of shelterbelt material occurred from May 12 to June 9, the latest shipping period recorded.

Approximately 7,000 orders totalling 2.2 million seedling-sized plants were shipped. In addition the following stock was also distributed:

1. 30,000 container-grown spruce and pine to Alberta Transportation.
2. 36,700 Arbor Day trees to 18 municipalities and children's organizations.
3. 38,000 pine and spruce that were too large to ship through the shelterbelt program were distributed to farmers in regions 4 and 5.

Shelterbelt surveys in regions 3 and 5 were completed. A crew carried out shelterbelt renovations in the MD of Rocky View.

The shipment of native trees and shrubs to provincial parks doubled. Approximately 12,000 plants were distributed to eight parks.

* A more detailed account of the centre's activities is found in its own annual report for 1982.

In the seed investigation section projects included experimental seeding, seed testing, propagation of subtropical trees and shrubs and overwinter storage of bur oak. The seed inventory in cold storage at year's end was over 1,600 kilograms.

Over 200 requests for seed from other agencies were filled and over 400 kilograms of seed from other companies were tested and stored at the centre.

The investigations section continued to look at production problems. Research centred on the problems associated with large scale production of containerized stock. Evaluation of the growth habits, survival rates, flowering and yield continued on plants in the saskatoon and McCalla fruit orchards.

The vegetable program at the centre consisted of demonstration research plots and extension activities. Information concerning the commercial production and marketing of horticulture crops was provided to numerous market gardeners, vegetable growers and other commercial producers. Assistance was also provided to the Alberta farmers' market program and the *Alberta Horticultural Guide* revisions committee. Thirty-three applications for the market garden development grant program were received, of which 18 were approved and 15 rejected.

The purpose of the market garden vegetable research program was to evaluate cultivars and cultural techniques aimed at improving production. Twenty-two trials were carried out at Edmonton and Peace River. Assistance was also provided to the colleges at Olds, Vermilion and Fairview, and the University of Alberta which annually conducts cultivar trials in co-operation with Alberta Agriculture.

The turf program continued at the centre. Increased contact was made with the sod producers in the province and the turf industry in western Canada. Turf research was initiated in 1982 with evaluation of cultivars of Kentucky blue grass, perennial rye grass and low maintenance grasses, and evaluation of the effectiveness of winterizing fertilizers.

The horticulture extension section continued to develop a program that provided information to amateur gardeners across the province. Seventeen courses were conducted at district offices through the winter education program. Fifteen presentations were offered to groups such as the regional farm wives' conferences and horticultural societies. In 1982, there were five television appearances, 13 radio interviews and approximately 15 articles written for the *Edmonton Journal, Agri-News* and *Prairie Landscape.* Four issues of *Nursery Notes,* a newsletter for the nursery trades, were also produced. Five displays were provided for major events across the province.

Grants were provided to the Alberta Horticultural Association and the University of Alberta Devonian Botanic Garden to offset operating expenses. Grants were also provided to urban municipalities in Alberta to assist in providing horticulture information to homeowners.

Alberta Horticultural Research Center

The center conducted applied research and provided advisory and diagnostic services to the producers of horticultural and special crops throughout the province. Because many special crops require both warm summer temperatures and irrigation, there was a concentration of effort in the southern part of the province.

The regional crops laboratory provided a diagnostic and advisory back-up service to the district agriculturists and other professionals, and growers directly. Over 1,500 cases were completed in 1982-83. Several plant disease projects funded by Farming for the Future were conducted.

In the 1982 growing season, vegetable production for processing and for the commercial fresh market was approximately the same as in the previous year. Alberta Horticultural Research Center staff worked closely with producers, processors and packers to ensure that information on the best practices was available.

The grant incentive program for beginning market garden producers continued to encourage those interested in getting into market garden production. A $750 grant was given for a maximum of two years for a minimum of one hectare of market garden production sold either directly or through wholesale channels.

In 1982-83 potato production reached approximately 195,000 tons, a higher level than at any time in a decade. A fire destroyed a potato chip plant, and economic difficulties reduced throughput of the granule plant at Vauxhall. A high inventory and the processor's problems resulted in a very difficult market.

The effort to improve the quality and reliability of Alberta-grown potato seed centred on the facility at Olds and the growers' association. Staff of the center also monitored disease and tested cultivars.

Pulse crop prices were low and the market depressed because of world conditions. A substantial program was carried on to assemble a good package of production and handling practices for a wide range of non-traditional crops such as pulses, annual forages, specialty oilseeds and spices.

A comprehensive weed control research program provided new information on herbicides to producers of horticultural and special crops.

Because of the threat of verticillium wilt of alfalfa, an emergency survey was conducted in co-operation with pathologists in Agriculture Canada. Recommendations to reduce spread of the disease began to have an effect.

Greenhouse growers continued to be concerned by high fuel prices. A task force of producers, industry people and public servants prepared a report and recommendations to create greater economic viability within the industry. Staff were an important resource to the task force. Improvements in the energy efficiency of greenhouses were implemented to some extent, but high capital and interest costs delayed large-scale improvements.

In an attempt to produce hardy bush fruit on a commercial scale, the Alberta Horticultural Research Center initiated trials on orchard-scale production. A bush fruit harvester was purchased for use on both experimental and private orchards. For a trial period the harvester will be transported to orchards throughout Alberta and used to bridge the gap until a viable industry is established.

Secondary food processing was a broad objective of Alberta Agriculture. The food science and storage specialists provided service to food processors. Both long established and new processors were given background information and literature or specific advice on current in-plant problems.

Because of the high costs of importing honeybees and the danger of importing serious pests, greater stress was placed on overwintering bees and the subsequent spring management of colonies to improve spring population buildup.

The European corn borer again invaded Alberta after many years of absence. Together with staff from other units, staff from the center conducted an eradication program for 1983.

Three monthly newsletters were published by Alberta Horticultural Research Center staff: a crop protection letter on pest problems and their control, a market garden letter for new and established fruit and vegetable growers, and a greenhouse letter for the greenhouse industry. Staff contributed regularly to the newsletters for the vegetable and potato industries and others published by grower associations.

Although the primary mandate of the center was applied research, all staff had a strong extension commitment and spent approximately 50 per cent of their time in extension activities. Staff visited farms, conducted information meetings and short courses, and published results.

Soils Branch

Information and laboratory services continued as the main activities by branch staff. Emphasis was placed on efficient use of fertilizers, soil amendments and ways of increasing production by reducing the effects of salinity. Applied research conducted in conjunction with other agencies was carried out on problem soils such as acid, solonetzic or saline. Many projects were monitored to determine the feasibility and economics of rather severe and costly treatments such as liming, deep plowing or ripping, and subsoil drainage.

Soil conservation interest and activity increased. A film on water erosion was produced to create an awareness among the farming and general public. Staff were involved in assisting municipal fieldmen with conservation projects funded under the soil conservation area program (SCAP). Twenty-six municipalities received grants totalling $260,000 under the program.

The agricultural lime freight assistance (ALFA) program continued with increased funding and activity by potential producers and the service industry. There were 100 applicants for transportation assistance totalling $378,000 in grants to farmers involving 13,200 tonnes of lime. As demand increased, sources nearer areas of need were developed which lowered the assistance per tonne of material.

The farmer association formed in the County of Warner continued to work with Alberta Agriculture on the problem of dryland salinity. The association provided liaison with a number of agencies to co-ordinate an on-farm drilling program to locate problem recharge areas in an effort to develop cropping programs. Farmer interest and acceptance were excellent and increased staffing and resources were directed to dryland salinity during 1982-83.

Agrometeorology information and advice were provided to farmers, field staff, specialists, agribusiness and the media. The effects of the second consecutive year of drought in the Peace and north-central Alberta were monitored. Ongoing information was provided to keep program administrators aware of agriculture's changing needs as a result of the effect of weather on production. Field experiments with treating seed with frost protection materials indicated effects did not carry through to crop maturity.

The agricultural soil and feed testing laboratory received 2,773 fewer samples from producers than the previous three-year average. This resulted from private soil and feed testing laboratories analyzing a significant number of samples. Lime requirement analysis to correct soil acidity was conducted on 656 samples compared to 594 in 1981-82.

Diagnostic analysis was conducted on 4,300 samples for department staff to assist producers with production problems. Research projects required analysis on 20,760 samples involving studies on grain and forage quality, plant nutrition, soil fertility and use of amendments. These research projects were conducted in co-operation with universities, Agriculture Canada and the private sector.

Work continued to improve diagnostic methods of analysis for assessing factors related to feed quality and crop production. A new method was studied for analyzing grain and forage quality. The use of a new infra-red technique provided rapid determinations with little sample preparation.

Producer interest in micronutrients and special analysis of feed materials and soils continued to increase, an indication of the need for a more complete evaluation when making management decisions.

Samples Analyzed in 1982-83 and Average for Three Previous Fiscal Years

Type of Sample	Feeds and Plants Materials		Farm Soil		Greenhouse & Garden Soils		Total	
	Av. 3 Yr	1982-83*	Av. 3 Yr	1982-83	Av. 3 Yr	1982-83	Av. 3 Yr	1982-83
Regular	4,130	3,833	12,586	9,809	1,569	1,870	18,285	15,512
Diagnostic	2,058	1,994	1,626	2,048	217	258	3,901	4,300
Research	2,835	8,630	8,192	12,130	—	—	11,017	20,760
TOTALS	9,023	14,457	22,394	23,987	1,786	2,128	33,203	40,572

* Fiscal Year – April 1 to March 31.

Crop Protection Branch

The crop protection branch extended technology and offered programs to help farmers protect their crops and livestock from losses due to weed competition, insect infestations, disease or predators. Additionally, the branch assisted in the control of rabies, maintained the rat control program and operated extension programs for commercial apiculturists.

In 1982-83 the branch was reorganized by combining the former weed control and field services branch with the crop protection and pest control branch.

The crop protection branch conducted programs under the jurisdiction of The Agricultural Pests Act 1974 and The Weed Control Act 1979. Programs were directed against six declared pests: Norway rat, warble fly, grasshopper, bacterial ring rot, fireblight and Dutch elm disease; and three nuisance animals: coyote, magpie and skunk. Weed control efforts focused on five restricted, 16 noxious and 37 nuisance weeds. Many of the control programs were conducted in support of the agricultural service boards.

Herbicide recommendations and information on use, toxicology and safety data were provided to Alberta farmers via extension meetings, publications and a new computer package.

The branch staff were heavily involved in staff training programs with the aim of improving the technical capability of district agriculturists and agricultural fieldmen. Increased emphasis was placed on training weed inspectors to conduct enforcement programs. There was an upsurge in demand for protection against the spread of weeds by careless or poor farming techniques and lack of attention to the weed problems on non-farm lands.

Pesticide application technology advanced rapidly, with new concepts such as controlled droplet applicators, charged particle generators and pesticide metering pumps holding the promise of reducing application rates and off-target spray drift.

Programs were operated to combat nodding thistle and diffuse and spotted knapweed infestations. Financial support was continued for leafy spurge control in the Cardston Municipal District.

The urban and industrial programs continued to provide technical support and direction to the weed control efforts of Alberta cities, towns and institutional landowners such as railways, utilities and oil companies. Many weed problems originate in these areas and spread onto farm land.

Eight publications were completed and distributed during the year.

A program on pesticides and human health was initiated, including staff training, farmer courses, preparation of audio-visual material and co-ordination with occupational health and safety groups.

Weed research and demonstration programs concentrated on field plot work in co-operation with municipalities. A total of 37 agricultural service boards participated with 48 plots.

Insect outbreaks were moderate to severe with grasshopper populations building up outside the normal range of this insect. The problem was linked to hot, dry weather in northeast Alberta and the Peace River region.

Flea beetles, clover cutworms, and red backed cutworms were present in sufficient numbers to require treatment.

Treatment of the Athabasca River to control black flies was continued, but the two treatments proved ineffective. The reason for this failure was not known.

The 1982 honey crop was very poor as a result of drought in the Peace River region.

Regional laboratories at Olds and Fairview provided diagnostic services to farmers experiencing disease and insect problems. Both labs also carried out research. Diseases of concern included head melanosis of wheat, seedling blight and sclerotinia stem rot of canola, and verticillium wilt of alfalfa.

Olds continued to operate the Alberta seed potato program with production of 13,000 tubers for distribution to seed growers in 1983. The seed potato industry in Alberta expanded vigorously with sales to the U.S.A. of 31,780,000 kilograms in the year.

Bacterial ring rot was down considerably as a result of efforts to encourage farmers to plant certified seed. Only 4 per cent of the potato acreage inspected was infected compared with 19.5 per cent in 1981.

Dutch elm disease did not reach Alberta and fireblight was primarily confined to European mountain ash in the south and central area of Alberta.

Alberta experienced a number of invasions of Norway rats particularly in the Provost area. A concerted effort to clean up this area resulted in 201 infestations being exterminated with 11 active colonies under treatment at March 31, 1983.

Ground squirrels, coyotes and pocket gophers continued to require only routine control work; however, the incidence of skunk rabies was up and 51 positive specimens were recorded. Efforts to control rabies by trapping and poisoning the skunk carrier were continued.

Bear damage of beeyards stabilized as the electric fencing program proved effective.

ANIMAL INDUSTRY DIVISION*

The division's five branches responded to the needs of producers and agribusiness concerned with production and marketing of meat producing animals and poultry.

The division's activities included extending technical information to producers and agribusiness, solving production problems, liaising with other segments of government to improve service to producers, administering and updating acts and regulations in concert with industry requirements, as well as advising on and participating in pertinent applied research projects.

Beef Cattle and Sheep Branch

The second quarter of 1982 started with a brief flurry of optimism for beef producers. Grade A1-2 slaughter steer prices in Calgary rose from just over $70 per hundredweight to peak at a weekly average of $87 per hundredweight in early June. In the next three weeks slaughter prices fell sharply. By early July A1-2 slaughter prices had dropped to a weekly average of $74 per hundredweight and by the end of the year Calgary A1-2 slaughter steer prices had bottomed at $65.00 per hundredweight. In the first quarter of 1983 slaughter prices began an uneven recovery. By March 31, A1-2 slaughter steer prices in Calgary averaged $73 per hundredweight for the week.

While prices for finished cattle ended the fiscal year at levels near the previous year, other economic factors such as feed and interest costs had been reduced considerably. Elevator bid barley prices fell from $105 per tonne late June to the low $70 range by mid-September 1982. Easing of cost pressure allowed cattle feeders to strengthen their bids for feeder cattle. In the second quarter of 1982, feeder steer calf prices in Edmonton rose from $70 to $85 per hundredweight. For the remainder of the year prices for steer calves remained steady in the $79 to $83 per hundredweight range. This represented a premium of nearly $10 over slaughter prices in the third quarter, and roughly $8 over calf prices received by producers in the same period of 1981. Feeder calves maintained a premium of more than $10 per hundredweight over finished cattle prices through the first quarter of 1983. On March 31 the average price for the week in Edmonton was $85 per hundredweight, nearly $20 more than the price paid for similar calves a year earlier.

The depressed prices for feeder calves early in 1982 resulted in a continued sell-off of cows and heifers. In the summer and early fall of 1982 cow slaughter in Alberta ran 25 per cent higher than the previous year. Heifer slaughter was also about 2 per cent above the same period in 1981. For the calendar year 1982, 9.3 per cent more cows and 3.7 per cent more heifers were slaughtered in Alberta than in the previous year, an indication that reduction of the beef cow herd was continuing.

Alberta beef cow numbers for January 1, 1983 were estimated at 1.31 million head, down 5.4 per cent from the previous year. In fact, the Alberta beef cow population was the lowest since 1971 when it stood at 1.27 million head.

There was a concern in the beef industry that the economic situation, changing lifestyles and competition from other protein sources were eroding the demand for beef. To counter these factors the Alberta Cattle Commission and the Canadian Cattlemen's Association initiated an extensive beef promotion campaign in 1982-83. Alberta Agriculture provided a grant of one million dollars to this promotion.

Alberta's sheep population continued to increase. The total sheep and lamb numbers as of July 1, 1982 were 205,000, up 4 per cent from July 1, 1981. The 1981 Canadian census recorded Alberta total sheep and lamb numbers at 201,300. Sheep one year old and older, usually considered an estimate of breeding males and females, were 106,000 on July 1, 1982, up 11 per cent from the previous year.

Alberta's slaughter at federally and provincially inspected sheep and lamb plants in 1982 was 79,042 head, up from 57,804 in 1981, higher than any other province in Canada.

Imports of dressed lamb and mutton to Canada in 1982 increased by 7 per cent to 22.7 million pounds compared with the 1981 level of 21.2 million pounds.

Imports of slaughter sheep and lamb from the United States into Alberta increased sharply to 6,794 head from 1,768 head in 1981. Exports of feeder sheep

* The animal industry division publishes its own annual report with more detail of the year's activities.

and lambs from Alberta to the United States were 5,625 head.

The profitability of lamb production continued to decline in 1982 as a result of low slaughter lamb prices. Lambs (A and B over 80 pounds) in Edmonton averaged $62.39, $68.58, $59.70 and $54.34 per hundredweight for the first, second, third and fourth quarters, respectively. The top price paid for quality shrunk lambs weighing between 95 and 105 pounds at Lambco was generally below 1981, ranging from $66.35 – $68.54 for 1982 and $64.13 – $69.56 for the previous year.

The total number of cattle bred by licensed inseminators continued to decline in Alberta as more cattlemen inseminated their own cows. However, across Canada most inseminating businesses reported modest increases in services, particularly in the dairy cattle breeds.

In the embryo transfer industry, developments in freezing and splitting embryos led to encouraging results. Three businesses in Alberta began freezing embryos for domestic and export markets and one embryo business succeeded in halving embryos.

The semen evaluation laboratory at Airdrie handled 918 samples of semen between April 1, 1982 and March 31, 1983. Many of the semen samples submitted to the laboratory were from animals suspected of producing semen of inferior quality.

The 866 doses of bull semen evaluated by the laboratory indicated that 401 samples or 46 per cent did not meet all of the standards set out by the artificial insemination industry.

Of the 52 samples received from species other than cattle, 39 or 75 per cent were considered substandard.

Despite some improvement in feeder cattle prices, both the commercial and purebred breeding sectors showed considerable restraint. Interest in programs designed to reduce costs or increase returns seemed to be higher than usual. Bull sales in particular seemed to show this trend where fat two-year olds faced a very tough market but performance-tested yearlings sold readily.

Interest in raising bison and elk increased, especially in the green zone and parkland agriculture areas. One major game ranch continued at the Metis settlement of Kikino where there were 35 bison, 20 elk and three moose on inventory.

Weather had a significant influence on the cattle industry in Alberta. The dry spring and early summer in the north half of the province following a cold long winter in 1982 led to a decreased level of reproductive performance in the beef herd. Veterinarians reported higher than normal levels of open cows in the fall of 1982. Fortunately sufficient late season rain produced adequate forage crops from cereals and second cuttings of perennial forages, and a mild winter in 1982-83 allowed the provincial cow herd to come through in relatively good condition. Claims for assistance under the feed freight assistance program were much lower than had been anticipated during the summer of 1982.

Decreased prices for feed grains coupled with declining interest rates early in 1983 allowed feedlot operators to purchase feeders on a negative margin (prices higher than fat cattle prices). Lower grain prices led to feeding higher levels of grain. This, combined with the mild winter, led to many finished cattle coming to market earlier than normal.

Problems associated with harvesting and storage of high quality forage remained a major obstacle to high milk production and good reproduction in dairy herds.

Dairy producers had to adjust from a situation of unrestricted quotas to quota reductions. This led to many enquiries by producers seeking advice on feeding and management strategies to cope with this change.

Swine production was generally very good in 1982-83. The main problem addressed in swine nutrition was the problem of inadequate energy, protein and macro and/or micro minerals in rations for different classes of pigs.

The nutrition section's involvement with goat producers continued. The main need of goat producers continued to be for good basic nutrition information. In addition, staff continued to be involved with questions and problems about rabbits, foxes, wild ruminants and dogs.

The record of performance (ROP) program was developed to assist commercial and purebred producers in maximizing economic returns by having a testing program to facilitate the identification and selection of breeding animals which express superior performance for economically important and heritable traits.

Approximately 500 herds and 32,000 cows were enrolled in the new federal-provincial beef ROP program. Enrolment was similar to 1981; however, one-third of the herds enrolled (160 estimated) did not complete a weaning report.

Supplementary to the home test program, technicians were provided under the ROP weight supervision program to assist farmers in recording fall weaning weights and spring yearling weights.

Eighteen separate testing agencies operated bull test stations in the province in 1982-83. Some 1,600 bulls were tested for growth rate from weaning to yearling and in most cases the top performers were offered for sale to the public. Fourteen test stations used some or all of the department support available to them in terms of consultation, supervision, and calculation and distribution of results.

The beef cattle and sheep branch continued to operate the Ellerslie Bull Test Station with a full complement of 200 bulls.

Fifty-eight bulls were sold at auction at the conclusion of the test for an average of $1,840.

The sheep ROP home test enabled producers to evaluate wether, ram and ewe lamb rates of body weight gain from birth to 50 and 110 days of age. Ewe index based on productivity was also provided. The number of breeders enrolled on the program increased in 1982. Commercial producers dropped the program because of the large amount of time required to weigh and record data. Purebred enrolments, however, have increased over the past five years, as ROP enrolment is mandatory for entry to class A shows. Most purebred producers accepted the home test program as a useful genetic tool in flock improvement.

The eighth consecutive year of operation of the ram test station was completed in 1982. The test was conducted at the facility on Olds College campus.

Two testing groups operated progeny testing programs under the young sire proving program in Alberta in 1982.

The warble control program assisted the primary beef producer reduce the damaging effects of warble grubs, which reduce the value of hides and carcass and increase the producer's costs.

The 1982-83 fiscal year saw a continued emphasis by department staff and agricultural service boards on contacting herd owners who had sold warble infested cattle, for the purpose of enforcing The Agricultural Pests Act.

The campaign for warble control showed encouraging progress. In 1982, 7 per cent of carcasses were infested with warbles compared with 14 per cent in 1980, the last year province-wide data were available. This compared with a base of 44 per cent infested carcasses in 1968, before the warble control program was started in Alberta.

The department granted local governments 60 per cent of their warble control program costs and paid the cost of maintaining warble inspectors in auction markets and stockyards.

The department assisted Alberta livestock breeders who showed breeding stock at major international class exhibitions outside of the province. The purpose was to ensure that potential customers from other provinces and countries became familiar with the high quality breeding stock available in Alberta, and that Alberta breeders had an opportunity to compare their stock with stock elsewhere and make personal contact with potential customers.

In the 1982-83 fiscal year agricultural service boards were given grants to cover 60 per cent of the costs to promote improved livestock production in their districts. Support was given to demonstrations to promote transfer of new technology or the purchase of special livestock equipment for loan or rental to local livestock producers.

The objective of the ration advisory service and feed testing program was to provide production information directly to livestock producers and feed companies in Alberta.

The number of requests for detailed ration recommendations for samples submitted to the agricultural soil and feed test laboratory (ASFTL) increased in 1982-83. Over-all there was a continued increase in demand for services for ration recommendations. Other department staff, especially regional specialists, were also deeply involved in nutrition consulting.

Interest in trace minerals and major minerals other than calcium and phosphorus continued to increase.

The artificial insemination (AI) data program introduced in April 1980 continued with a grant being paid for each insemination reported by the licensed inseminating businesses in the province. This program has led to more accurate AI records and a clearer assessment of the artificial insemination industry.

The ram purchase program to improve the genetic quality and breeding condition of rams purchased for use on community pastures continued.

The sheep and goat technician program continued in 1981. Seven sheep technicians and one goat

technician were contracted to work throughout Alberta. They extended to primary sheep producers practical information on sheep feeding, management and housing to improve lamb and wool production efficiency. They also provided information on markets, sources of breeding stock and supplies, government programs and related industry matters not readily available from other non-government sources.

The feed freight assistance program instituted in 1982 assisted producers to cope with forage shortages in regions 4, 5 and 6. Twenty-nine counties, municipal districts and improvement districts participated.

Data were analyzed from two years of on-farm trials testing the response of cattle to growth implants.

Research undertaken by the division was concerned with cattle response to growth implants, ear implants on yearlings, interaction between implants and trace mineral nutrition, use of leg bands to control warble fly larvae, testing of a repellant against biting flies on horses, treating for warbles in December, January and February, beef bull fertility, sow fertility using frozen semen, dairy cow fertilization, and estrus synchronization in sheep.

Phase I of the herd management system, a mechanism to assist primary producers in identifying the strengths and weaknesses in their cow-calf enterprises, was completed. Enrolment increased in the Alberta certified feeder program, designed to minimize the economic loss caused by stress and disease during movement of calves from the cow herd to the feedlot.

The nutrition section of the branch was involved in identifying research needs, evaluating research proposals, conducting research and extending information in order to solve nutritional problems affecting livestock.

Other research and demonstration activities were as follows:

- Continued activity with the University of Alberta to evaluate the intake and digestibility of forages and predict the feeding value of forages.
- Commenced work with the University of Alberta to measure and assess the available energy, protein and amino acid content of a variety of pig feeds used in Alberta.
- Continued a long-term field study of cracked hoof syndrome in 16 Alberta beef herds. Commenced a controlled study of this syndrome at Lakeland College.
- Completed a study on the copper requirements of growing goats.
- Continued a study on copper toxicity in Holstein calves.
- Continued a three-year study on macro- and micro-mineral content of forage crops in Barrhead region as affected by variety and maturity at harvest.
- Conducted a trial on the effect of silage level and trace mineral supplementation on the performance of feedlot heifers.
- Completed work with the University of Alberta on the effects of protein content of barley and protein content of barley and protein supplementation on pig performance.
- Continued contact with high-moisture barley research.
- With the Alberta soil and feed testing laboratory, evaluated the determination of the nitrate content of plant and feed material by specific electrode.
- Also with the soil and feed testing laboratory, determined how the nutrient analysis of silage was affected by overdrying, microwave and freeze drying.
- Conducted an assessment of the quality of dairy feeds analyzed at the soil and feed testing laboratory.

Branch staff were involved in extension work, producer meetings, correspondence, media releases, personal contact and on-farm demonstrations to make livestock information available to primary producers, industry, the public, and government agencies.

A reproduction management system was developed for dairy cattle. A beef cow reproduction management record was also developed.

The special projects section continued the livestock pests workshops, presented this year in the Fairview region.

The branch organized and participated in numerous workshops and seminars. Cattle management, ration formulation, trace mineral nutrition, cow-calf and feedlot management, sheep nutrition and management, dairy cattle breeding, livestock pest control, beef pre-immunization and pre-conditioning and artificial insemination were some of the topics discussed.

The branch published four regular newsletters in 1982-83: *Sheep Notes and News, Footnotes, Stock Chat* and *Talking Stock*.

Pork Industry Branch

The 1982 farm cash receipts from sales of hogs in Alberta were estimated at $220 million, up $25 million from 1981. Total production of pigs for slaughter declined by 3 per cent from 1981, and the annual average price rose to $82.23 in Edmonton from $67.81 in 1981. As a percentage of total farm cash receipts, income from hogs rose from 5.0 per cent in 1981 to 5.6 per cent in 1982 in Alberta. Exports of pork for Canada rose by 28 per cent and imports fell by 25 per cent compared with 1981. For Canada, 368 million pounds of pork were exported and 30 million pounds were imported, for a net outflow of 338 million pounds in 1982, about 20 per cent of Canada's total production, compared with 15 per cent in 1981.

The number of active hog producers in Alberta in 1982 was 6,500. The number of hogs marketed in 1982 was 1,527,542. On January 1, 1982, the Alberta breeding herd was reported to be 134,000 and on January 1, 1983 it was reported to be 134,000. Pigs on farms January 1, 1983 totalled 1,185,000, 4 per cent below the year previous.

Alberta's share of Canada's hog production was 11.8 per cent in 1982 as compared with 12.2 per cent in 1981.

Hog prices were some $15.00 per hundredweight above the year previous on the average, and reached record levels in 1982 of $99.50 as a daily average. Prices averaged over $90 per hundredweight during June, July, August and September. The pork producers' market insurance program helped maintain cash flow early in the year, but mostly the high prices led to a replenishment of the insurance fund by the end of March, 1983 to a balance of $9 million.

This program, while reducing the cash flow to pork producers in the past year, helped maintain confidence in the industry by establishing a floor price each month for participating producers. About 2,900 producers participated – 45 per cent of Alberta's active producers – with about 72 per cent or 1,100,000 of Alberta's hogs.

The Alberta swine artificial insemination (AI) program continued to expand during the past year. Semen shipments totalled 4,011 to 200 different farms. This was an increase of 50 per cent over the previous year.

The swine record of performance (ROP) program served 94 hog operations and tested 15,740 pigs on farms in 1982 – a 13 per cent increase over the previous year. Most of these were on farms which were in the business of selling breeding stock. In the test station aspect of the program, operated in co-operation with Agriculture Canada, 872 boars were tested at the Leduc and Lacombe test stations in 1982, an increase of 140 over the previous year.

Increased numbers of hogs were sold and higher prices were paid at test station sales.

The swine specialists carried out a major share of the pork industry branch's swine extension program. Over 355 farm calls were recorded by specialists. These involved questions in nutrition, engineering, herd health, finance, breeding, servicing AI and ROP programs, investigations for the Agricultural Development Corporation, feed test results followup, ventilation problems, planning visits and work with local vets, feed company personnel, swine buildings engineers, regional economists, district agriculturists and others. Frequently groups of producers were brought together for joint consultation. Over 379 office interviews were recorded by the specialists. Swine extension materials were supplied directly and through district agriculturist offices.

Thirty-nine additional factsheets were prepared for the *Pork Industry Handbook*. A research review column and a column with questions on nutrition were produced by the specialists and the nutritionist for the *Alberta Hog Journal*.

Staff organized over 25 local extension meetings, seminars and series courses throughout the province this year, with attendance from five to 80 persons at each. In addition, they helped to plan and stage the Alberta Pork Seminar (120 attending), the Alberta Pork Congress (about 3,000 attending), the district agriculturist in-service training course, and meetings of the Alberta Swine Breeders' Association, the Western Hog Growers' Association, the Southern Alberta Hog Producers' Association and the Alberta Pork Producers' Marketing Board district meetings.

Regional swine specialists conducted 90 educational programs and over 700 office interviews and farm calls.

Horse Industry Branch

The horse industry in Alberta continued to lead all other provinces in horse numbers, registrations and activities. Alberta had approximately 158,000 horses, 40 per cent of the Canadian horse population.

In general, price levels for above-average horses were maintained or increased whereas prices of average and below-average horses declined about 25 per cent during the past year. Prices for slaughter horses dropped about 10 cents per pound to an average of 45 cents per pound.

Buyers throughout Canada, the U.S. and Europe looked increasingly to Alberta for breeding stock.

The branch provided educational and advisory services to horse owners in all areas of the province. The branch's clientele consisted of primary producers who raised horses, and horse owners who purchased and used horses for sport and recreation. Although priority was given to the breeding industry, considerable effort was given to providing information on general care and management of horses to horse owners, as a large percentage of these people had no agricultural background and expertise with livestock.

Extension programs consisted of conducting or supporting up to 40 short courses throughout the province, providing speakers for programs conducted by colleges and organizations, as well as on-farm, office and telephone consultations.

The branch prepared technical articles and bulletins for distribution. Staff were available as resource people for colleges, veterinarians, district agriculturists, private and public loan officers and other Alberta Agriculture staff.

A committee representing participating breeds assisted in planning the horse improvement program, an annual breeders' show designed to identify and recognize superior horses, breeders and trainers in Alberta.

Travel assistance was available to Alberta breeders whose horses qualified for and participated in recognized national or international championship competitions outside of Alberta.

Through referral by a veterinarian, horse breeders could have a fertility evaluation of stallions conducted by the branch in co-operation with Olds College.

The branch assisted in administering market development grants for provincial horse breed associations. During 1982-83, 11 breed associations were provided grants totalling $78,555.

As a service to provincial organizations, the branch conducted drug testing at main horse shows.

The branch conducted a horse nutrition research project at Lakeside Research, Brooks, in which growth rates and feed conversion of weanlings, yearlings and two-year olds were compared. A forage evaluation research project at the University of Alberta was funded and reproduction research at the Western College of Veterinary Medicine was supported.

Poultry Branch

For most sectors of the poultry industry 1982 was a year of consolidation and belt tightening. Chances for increased profits were offset by increased charges for such items as energy, interest and labor. The sector that fared best was the turkey industry. However, the Canadian Turkey Marketing agency has since cut Alberta's allocation by one million pounds or approximately 5.5 per cent of the 18.2 million pound original allotment.

Prices for most poultry and egg products were lower toward the end of the year. This was only partially compensated for by reductions in feed costs. In June the Alberta Egg and Fowl Marketing Board lowered its levy from 8.5 to 7.5 cents per dozen. Some egg producers received a financial boost through increased premium on selected grades.

The broiler hatching egg producers marketed their birds as much as 10 weeks earlier than normal.

As the year ended, the Canadian Chicken Marketing Agency put pressure on the Alberta Broiler Growers' Marketing Board to join the national agency. The pressure was applied to processors, with the national agency attempting to curtail shipments to regulated areas.

At year end Canada Packers opened a new processing facility in the Edmonton area.

The year 1982 saw the formation of the fourth poultry marketing board, the Alberta Hatching Egg Marketing Board, which controlled the production of broiler hatching eggs within the province. The vote for the establishment of a marketing board came at a time of heavy surplus in the hatching egg business. Steps were taken to bring supply into line with demand, imposing a severe financial strain on many growers. Subsequently the marketing board requested assistance from Alberta Agriculture, which along with industry, participated in a stop-loss payment aimed at keeping these operators in business until their board system becomes completely operational.

Commercial egg marketings through registered egg stations decreased 1.8 per cent. The per capita

consumption of shell eggs in Alberta in 1982 was 20.6 dozen, compared with 20.4 dozen in 1981. A shift toward increased egg consumption occurred as a result of retail outlets offering eggs at special prices and because of uncertainty in the economy. Net egg movements into the province during 1982 averaged 12,521 boxes per week compared with 10,690 in 1981, an increase of 17 per cent.

Alberta chicken marketings in 1982 increased significantly from 33.970 million kilograms in 1981 to 37.002 million kilograms in 1982, an increase of 8.9 per cent. Total chicken consumption was 8.8 per cent higher in 1932, reaching 38.9 million kilograms. During 1982 Alberta's Cornish hen production was 3.35 million kilograms, a market share of 40.0 per cent compared with 49.4 per cent in 1981. For Canada, higher pork prices and relatively lower chicken prices increased demand for chicken. Consumption for the year was 2.8 per cent higher than 1981. Per capita consumption increased by almost 0.5 kilograms to about 16.5 kilograms.

Alberta turkey production in 1982 was 7.6 million kilograms, about 95 per cent of the 1982 quota allotment of 8.01 million kilograms. Live turkey from Saskatchewan continued to move into the province to augment local supplies. The per capita disappearance of turkey in Canada in 1981 was 3.88 kilograms, down from 4.11 kilograms in 1981. The consumption breakdown was 2.46 kilograms of heavy turkey (over 5 kilograms) and 1.42 kilograms of broiler turkey (under 5 kilograms).

The poultry branch's programs related to increasing poultry production, improving efficiency and thus farm income, and keeping poultry products competitive with other protein sources.

Trials conducted involved the use of approximately 3,000 leghorn layers, 1,200 broiler breeders and 11,200 male broilers and roaster chicks.

Projects were completed on the use of commercially produced canola meal in rations for leghorn layers and broiler breeders.

Experiments were conducted to see how the consumption of high levels of salts found in water in poultry operations affected production.

Two experiments compared the economic returns to producers of raising a roaster strain of chicken versus several broiler strains raised to roaster size.

Other experiments with roasters assessed starter diets containing 17, 20 and 23 per cent protein.

The poultry branch continued to monitor all breeder flocks and hatcheries, with emphasis on salmonella detection and reduction, in co-operation with the animal health division.

The number of approvals of chicken broiler breeders resulted in a surplus of hatching eggs. The number of heavy turkey breeders approved decreased over 1981. No turkey broiler breeders were approved.

An infectious laryngotracheitis (ILT) outbreak occurred in one major commercial broiler flock; other ILT cases were diagnosed in five small exhibition flocks throughout the province.

The province signed a pullorum-typhoid eradication program with the federal government.

The branch conducted economic studies in order to keep cost figures and production standards current. Price fluctuations were much less pronounced for poultry than for most other livestock. The poultry branch continued to supply extension information to all phases of the poultry industry, from commercial producers to hobbyists. Staff made 1,006 farm calls in 1982 and 140 calls to the allied trade.

In February, the 32nd annual poultry industry conference was held in Lethbridge. Although the turkey marketing board did not participate in the conference, attendance was good.

The branch continued its work in the area of rabbit extension by organizing a symposium for producers, mailing out 96 rabbit information packages, answering numerous phone calls, and publishing the booklet *Raising Meat Rabbits in Alberta*.

Regulatory Services and Feeder Associations Branch

The main role of the regulatory services and feeder associations branch was the administration of certain acts and their regulations. The acts and regulations were designed to protect livestock producers by providing:

- brand registration
- brand inspection service
- licensing and bonding of livestock dealers and agents
- licensing of stockyards and stockyard operators
- protection of lands and agricultural products from livestock running at large

— investigations of fraudulent trade practices concerning livestock
— a means whereby members of feeder associations may acquire livestock for feeding and/or finishing.

The feeder association section administered The Feeder Associations Guarantee Act which enabled members of feeder associations to acquire livestock for feeding or finishing. During the year 38 feeder associations operated under this act.

During the fiscal year $27,761,209 worth of credit was used to purchase 68,710 cattle and 4,080 sheep by 1,217 feeder members. The amount outstanding as of August 31, 1982 was $16,016,453.

Under The Stray Animals Act, 984 head of livestock were impounded during the year.

A total of 49 livestock markets and 67 livestock assembly stations were in operation at year end.

There were 879 livestock dealers and agents compared with 781 in 1981. A total of 43 claims were received against four livestock dealers' bonds during the year.

The number of head of cattle and horses inspected through markets and on export was 3,070,219, an increase of 188,263 head from 1981.

Six branding demonstrations were conducted.

DAIRY DIVISION

The dairy division assisted dairy producers and processors through inspection, consultation and demonstration with the objective of producing legal, safe and wholesome dairy products economically. The division also encouraged diversification to new dairy products in an effort to encourage the value-added concept.

Producer management programs, for example, the dairy herd improvement programs, assisted producers in developing and maintaining economic production units.

Dairy Processing Branch

Dairy specialists inspected each plant regularly, collected samples for laboratory analysis, and submitted the results to headquarters, the respective plants, the Provincial Board of Health and appropriate local health units.

Unsatisfactory reports were followed up by special inspections and detailed discussions with plant personnel.

As in recent years, almost 100 per cent of freshly processed milk from plants complied with Board of Health standards of not more than 5 coli per millilitre and not more than 20,000 bacteria per millilitre (standard plate count – SPC). These standards were surpassed by 74.5 per cent of samples which showed 0 coli and less than 300 SPC in products collected at the processing plants. Increased emphasis was placed on keeping quality (expected shelf-life). Fluid and cultured products were tested microbiologically following seven days' storage under controlled conditions designed to simulate conditions until use.

Annual in-depth plant inspections were conducted jointly by provincial and federal inspectors. Each plant received a numerical rating thus enabling an intra- and inter-provincial comparison. Alberta's provincial rating was the highest in Canada, reflecting the adoption of the latest technology and the emphasis on quality and good housekeeping. The following table shows the progress made by Alberta dairy plants in the last three years.

Alberta Dairy Plant Ratings Compared With The National Ratings

	1980	1981	1982
National average plant score	80.6	81.1	82.4
Alberta average plant score	85.1	85.6	88.1
Lowest scoring plant in Alberta	72.9	70.3	77.1
Highest scoring plant in Alberta	96.0	99.4	99.9

The certification of all dairy plant workers in Alberta continued. Certificates in buttermaking and cheesemaking were issued to 18 candidates.

Raw milk supplied to dairy plants was examined for sediment and off-flavors, and specific types of organisms that could affect keeping quality.

Sampling and testing of bulk milk received at Alberta dairy plants continued to be of major concern with special attention paid to preventing milk containing antibiotics or inhibitors from entering the system.

Bulk milk grader training and surveillance were both increased.

Dairy manufacturing plant licences issued in 1982 totalled 35, compared with 48 in 1981.

The trend in the industry continued toward converting the smaller fluid milk plants to depots, and building or expanding larger fluid milk plants. Attention shifted to refurbishing industrial milk processing capability.

A modern process cheese factory was under construction. One new plant was opened in 1982.

Dairy Farm Inspection Branch

Inspection and advisory services were provided to dairymen concerning milk quality, milk production, improvement and upgrading of milking facilities and equipment. The branch staff used support services of other branches to assist in accomplishing their goals.

The dairy farm inspection branch continued to provide inspection services on behalf of the Agricultural Development Corporation relating to the dairy development program.

The graduated entry program was interrupted by slowing fluid milk sales during the 1982 calendar year and declining sales during 1983 to date. Milk producers entitled to their second and third allotments received them as planned. The program, however, received no additional entries. Fifty-nine milk producers who applied and met milk quality and premise requirements had their names applied to a waiting list.

Substantial gains were made in milk quality during 1982. Redeployment of staff and the milk grade and price program contributed to the improvements.

Of the 1,765 producers as of March 31, 1983, 1,462 were fluid and 303 were industrial. This represented a net loss of nine producers. There was a further erosion of the number of industrial producers by 38 and an increase in the number of fluid producers by 29.

The milk grade and price program, operating for a 12-month period ending March 31, 1983, recorded 255 standard plate count violations, 54 freezing point violations and 198 inhibitor violations, totalling 507 violations. There were 27 loads of milk destroyed because of inhibitor contamination. Funds collected from producers for grade deductions were allocated to pay for these lost tanker loads and to bulk milk graders for the time and costs required to confirm tests and dispose of positive loads. The remainder was redistributed to milk producers on a monthly basis via the Alberta Dairy Control Board.

A concerted effort was made to identify producers whose cows were experiencing mastitis problems as measured by somatic cell counts. Staff made a number of interdisciplinary farm calls respecting these producers. The average bulk tank somatic cell count continued to decline during 1982.

Efforts were continued during the past year to upgrade the status of industrial milk producers to fluid milk standards. At last review, 83.3 per cent of these producers met the bacterial quality standards.

Dairy Farm Production Branch

This branch was created in 1982 to meet the changing needs of the dairy farmers in Alberta.

Non-inspection activities of the dairy farm inspection branch and dairy extension programs of the dairy cattle improvement branch were transferred to the new dairy farm production branch.

Duties assigned to the branch included development and administration of programs and support services to assist dairymen in planning, developing and managing viable, efficient dairy farms.

Considerable assistance was provided to Alberta Agricultural Development Corporation staff and other lenders to determine causes of each producer's financial problems. Recommendations and follow-up management advisory services were provided to the lender and farmer client. Additional resource personnel were consulted as necessary to provide a team approach to management problem solving.

Assistance was provided to management and staff of the Alberta Dairy Control Board concerning quota policies and analyses of farm situations. Many dairymen were caught expanding production and incurring increased financial commitments while the market for dairy products was not increasing.

Production Plus clubs and related programs were expanded. This was a new concept in providing extension services to producers who ordinarily did not take advantage of technological change. Small group meetings were followed up by on-farm consultation

services. In-service training programs were conducted to encourage participation of district agriculturists.

An individual cow somatic cell counting pilot project was developed. The project, limited to 60 herds in the first year, provided a monthly somatic cell count on each cow in a herd already participating in a laboratory tested milk recording program in Alberta. Somatic cell counts assisted dairymen in determining the probability of a cow having mastitis, the most costly disease associated with dairy farming.

Milking equipment analyses were provided to Alberta dairy farmers. Recommendations for upgrading and improving the performance of milking equipment was a major branch activity.

Farm Machinery Act administration provided important assistance in ensuring the proper installation of milking equipment on dairy farms by Alberta dealers and installers.

A stainless steel welding course, developed in co-operation with the Southern Alberta Institute of Technology, was held for equipment dealers and installers.

Feeding whey to dairy cattle was studied and a project undertaken to determine the feasibility of whey feeding in southern Alberta. Proper disposal or utilization of whey became increasingly important as the amount of milk used in cheese making increased.

A monthly newsletter, *Alberta Dairy Producer*, provided timely information to all milk and cream producers.

Assistance was provided in development of dairy seminars for farmers, staff and producers. Advice was given concerning export of dairy cattle and dairy technology, dairy farm building plans and a dairy pesticide study.

A study of bulk tank installation on dairy farms found significant errors in tank calibrations. Such errors can result in significant errors in payment for milk received by processors.

Dairy Cattle Improvement Branch

The dairy cattle improvement branch administered the dairy herd improvement (DHI) program which serviced 743 (721*) producers, 66 (67*) of them on the supervised component of the DHI program.

* indicates statistics for the previous year, 1981-82

Approximately 60,000 cows were enrolled on DHI in 1982, an increase of 9 per cent. In addition 8,550 cows were tested on the federal record of performance program in Alberta. Sixty-eight per cent of the commercial dairy cattle Alberta were enrolled on a milk recording program during 1982-83. Tested herds produced more than 70 per cent of the fluid milk produced.

Average milk production increased to a record of 6,126 kilograms (13,505 pounds) in DHI herds. This was approximately 2,000 kilograms (4,400 pounds) more than the average of all milk cows in the province. Average milk production in the supervised DHI herds increased dramatically to a record 6,965 kilograms (15,355 pounds) per cow.

The national identification program (NIP) of upgrading, a genetic recovery program for grade cattle, continued as a priority field service. More than 120,000 animals have been identified since the program was initiated in 1975. In addition, over 5,400 animals were upgraded to meet their breed associations' herd book entry requirements. Eighty-five per cent of the heifer calves NIP identified in 1982 were offspring of registered purebred sires.

The Alberta milk recording committee continued to work closely with government throughout the year, in the development of a proposal for the privatization of DHI field services. The Alberta Milk Producers' Association agreed to act on behalf of the committee in the negotiation of an interim agreement. April 1, 1984 was established as the target date for the transfer of DHI field services.

Herd owners enrolled in DHI were assessed an annual fee of $3 and $9 per cow for owner – sampler and supervised test in 1982-83.

Branch staff continued to provide herd owners with breeding, feeding and production management information upon which to make effective management decisions related to increasing efficiency of milk production in Alberta. DHI records workshops were held throughout the province to instruct and assist dairymen in putting their records to work.

The provincial cheese specialist's main activities were continued updating of starter culture technology in Alberta's two largest cheese factories, the incorporation of the latest culture methods into the manufacture of cultured products other than cheese, and the evaluation and selection of equipment for the new processed cheese plant at Bashaw.

The division continued to work closely with the Dairy Control Board in policy formulation. Staff continued to work with producers in communicating Dairy Control Board information.

The division collected and recorded statistics on Alberta manufactured products for the Alberta Bureau of Statistics and Statistics Canada.

ANIMAL HEALTH DIVISION

By providing information and programs on diagnosis, prevention, control and treatment of disease, the five branches of the division helped improve agricultural production. Programs for inspecting animals at the time of sale, and entry to community pasture assisted in preventing disease transmission between animals. Meat inspection was carried out in order to ensure a wholesome and safe supply of meat from the smaller abattoirs. Better animal management systems were promoted to help prevent and control animal disease. A number of diseases that are transmissible from animals to humans were detected and assistance provided to help prevent their spread.

Salmonellosis cases in dairy herds increased. Producers and private practitioners were assisted in applying control measures to help prevent further animal infections and human infection. A type of salmonella, *Salmonella dublin*, was found in Alberta for the first time. This type can cause serious disease in cattle but so far has been found only in dogs. There were fewer cases of mange in cattle; the injectable drug for treatment was available and proved successful. Brucellosis in cattle continued to come under good control and for one month there were no herds in quarantine. However, several herds were found to be affected later in the year.

The division's role in the federal brucellosis control program was confined to testing for the disease in specimens submitted to the laboratories.

Birds of the parrot family continued to have a significant incidence of psittacosis which can cause serious disease in man. These birds can also carry Newcastle disease virus. Monitoring of the cause of death was done to provide an early warning and prevent infection of commercial flocks.

The summer work experience program for veterinary students was continued, providing fellowships to assist post-graduate training of veterinarians. Assistance was provided to the Alberta Society for the Prevention of Cruelty to Animals for their operations and to the Yellowhead Humane Society at Edson for construction of an animal shelter. Inspection of laboratory animals and facilities at medical schools at Alberta's universities was carried out in order to ensure continuing good care.

Assistance was provided to the Alberta Veterinary Medical Association in preparing the proposed veterinary profession act.

ANIMAL HEALTH DIVISION
SERVICES PROVIDED
23,960 cases examined
animals inspected at abattoirs 2,093,670
2,027,310 animals inspected at stockyards and community pastures
405 farm visits
72
73
74
75
76
77
78
79
80
81
82

Meat Hygiene Branch

Meat inspection was provided to 72 red meat plants, eight poultry plants, 66 Hutterite colonies processing poultry, one rabbit plant and one secondary processor. Livestock inspected during the year included 50,119 cattle, 53,577 hogs, 8,688 sheep, 612 goats, 75 buffalo, 28,191 rabbits, 70,733 ducks, geese and turkeys, 1,615,953 broilers and 265,718 fowl. Increased numbers were inspected in all except hogs, indicating continued growth of the industry.

Condemnations for the year were approximately .11 per cent for cattle, .10 per cent for hogs and .02 per cent for other species. A total of 42,160 portions were condemned.

Amendments to the regulations under the Meat Inspection Act increased the branch's ability to prosecute violations.

The livestock disaster and predator indemnity programs continued to be administered by the branch. The programs indemnified livestock producers who suffered through "Act-of-God" incidents over which they had little or no control, producers suffering livestock losses through predation and beekeepers suffering bear damage. Eleven disaster claims, 10 beeyard claims and 644 predator damage claims were paid.

Preventive Medicine Branch

The administration of legislated animal health programs, prevention and control of diseases in livestock, and safeguarding human health by control of certain designated diseases and enforcement of regulations for sale of livestock medicines continued to be major responsibilities. Herd disease prevention and improved production techniques were encouraged among livestock producers and veterinarians. Legislated programs included livestock inspection at auction markets, livestock medicine outlet licensing, fur farms licensing and control of designated communicable diseases. Research projects were continued and new ones initiated.

The demand for services from the branch remained high during the year. Over 100 veterinarians in private practices throughout Alberta were utilized for auction market inspections, community pasture inspections, swine herd health visits, disease investigations and extension programs. The animal health home study course was completed in regions 5 and 6 and presented in regions 1 and 2.

The six Agricultural Rural Development Act veterinary clinics in western and northern Alberta continued to provide a full range of veterinary service. The clinics at Edson, High Prairie and Fairview remained viable practices, whereas those at Valleyview, Manning and Fort Vermilion required additional income support in order to retain practitioners.

The Alberta certified preconditioned feeder program again expanded considerably. There were 16,250 calves processed and 8,150 sold at 14 monitored sales in nine locations. Producers received average additional prices of $3.61 per hundredweight for pre-immunized and $5.56 per hundredweight for preconditioned steer calves in 1982. Observations showed that producers could increase their total returns both through increased prices and by increased selling weights of calves. The feedlot performance after sale indicated that the number of calves requiring treatment was decreased by one-half in preconditioned calves compared with regular calves, both those remaining in Alberta and those shipped to Ontario. Two research projects were initiated to study the effects of preconditioning on cows and calves before and after sale.

The bovine respiratory disease research project, funded by Farming for the Future, was operated as a joint project between Alberta Agriculture and the Veterinary Infectious Disease Organization.

In response to a brief submitted by the Alberta Veterinary Medical Association, a study into livestock medicine use in Alberta was initiated.

A revised designated disease list came into effect and included leptospirosis and salmonellosis for cattle and swine, footrot and brucellosis for sheep and infectious laryngotracheitis and salmonellosis for poultry. Members of the branch were active in extension presentations to producers of various species of livestock. Veterinary practitioners were assisted with audio-visual material to help them present extension seminars to producers.

A variety of infectious and other disease problems were investigated on farms.

The swine herd health program continued to expand as a result of increased producer awareness and greater interest and participation by practising veterinarians.

Auction market inspection continued at slightly fewer sales but increased numbers of animals.

Livestock entering community pastures were inspected for evidence of disease problems. Post mortem examinations of animals which died while on the pasture were carried out, and indicated that pneumonia was the most frequent cause of death in cattle. The sheep footrot eradication program was continued at one pasture.

Livestock medicine outlets were licensed and inspected to assure that they met the requirements of the regulations.

Fur farms were again licensed. Mink production continued at a similar level to the previous year. There was an increased interest and activity in fox farming.

Regional Laboratories Branch

The regional laboratories branch was responsible for the operations of diagnostic laboratories in Airdrie, Lethbridge and Fairview. These laboratories offered a diagnostic service to livestock and poultry producers and their veterinarians from Red Deer south and from Valleyview north. As well, consultation on matters of disease and its prevention was provided to livestock and poultry producers and their veterinarians. Field trips were made to investigate unusual or serious disease problems.

Consignments to the three laboratories reached an all-time high. The Lethbridge laboratory showed the largest increase.

Pasteurella pneumonia, *Hemophilus somnus* infection, coccidiosis, infectious bovine rhinotracheitis (IBR) virus infection and bovine virus diarrhea (BVD) continued to be prominent in cattle. Salmonella infection occurred in a few herds. Nutritional myopathy and bloat were seasonal problems.

Abortions caused by parvo virus infection and transmissible gastroenteritis (TGE) resulted in serious economic loss to some hog producers in the central and southern areas of the province. One producer lost a number of sows when a power failure allowed hydrogen sulphide gas from the manure pit to accumulate.

Mesangiocapillary glomeronephritis, a kidney disease, was recognized for the first time in Alberta sheep. The incidence was low but a study was begun to ascertain if the problem can be eliminated by selective breeding.

Leg weakness problems in poultry continued to cause economic loss.

The Airdrie and Fairview laboratories provided instruction to animal health technician students of Olds and Fairview colleges and the Northern Alberta Institute of Technology.

Veterinarians from the Airdrie laboratory co-operated with fish and wildlife personnel of the Brooks Wildlife Centre in a disease prevention and control program for the centre.

Personnel of the Fairview laboratory co-operated with fish and wildlife personnel in a survey of grizzly bears and cougars for trichinella infection.

Reference Laboratories Branch

The primary responsibility of the branch was to provide an efficient and accurate laboratory support service for the diagnosis of infectious diseases and non-infectious conditions such as nutritional deficiencies and poisonings. Special services such as virology, electron microscopy and chemical analysis were provided for the entire province whereas other services were provided to the central regions.

A secondary responsibility was to develop faster and more accurate methods of disease diagnosis. Consultation was provided to producers, veterinarians and other agencies.

A total of 78,554 specimens were processed in the various sections, which represented a 9 per cent decrease from the previous year. Equipment breakdown in toxicology, and program changes led to the decrease.

The first isolation of *Brucella canis* which caused reproductive diseases in dogs and can cause infection in man was diagnosed in a central Alberta kennel. Consultation was provided to the practitioner and the owner, so that appropriate control measures could be applied.

Testing of blood serum samples for bovine leucosis virus to antibodies became well established. An increased number of samples were processed due partly to international recognition of the laboratory's test results and partly to an increased recognition of clinical disease.

Pathology Branch

The pathology branch provided expertise in disease diagnosis to veterinarians, livestock producers, other government departments and the public in central

Alberta. The service was extended for all species of domestic animals, poultry, zoo and wild animals, birds and fish. One section specialized in reproductive diseases of production animals. Consultation on disease matters was provided as an extension of case reporting.

A system was established to collect information on calf scours on a provincial basis. With the continued development of antibiotic resistance, positive response to drug treatment was difficult to obtain. On-farm investigation, improved sanitation and application of preventive measures were encouraged. Calf scours cases were screened intensely for all possible agents to try to determine the extent of various infections. The laboratory also investigated practical screening techniques to assess the consumption of colostrum by the newborn calf.

Following the blowout of a gas well near Lodgepole, special attention was given to cases arising from that area.

Johne's disease, a chronic form of diarrhea, occurred in several herds, predominantly dairy cattle. A study indicated that the organism occurred in animals from these herds which did not show classical Johne's disease. Further screening was instituted.

Work continued on "shaker calf" syndrome, an inherited nervous system defect investigated as an animal model for human disease.

Bovine virus diarrhea continued to occur sporadically and resulted in high losses in a feedlot. Feedlot cattle respiratory disease continued as a severe disease complex.

A federally funded research project on salmonella decontamination of poultry barns was carried out. Fancy flock breeders were encouraged to vaccinate for infectious laryngotracheitis (ILT) after the policy of slaughter and compensation was terminated. ILT occurred in several commercial flocks.

In co-operation with the fish and wildlife division, British Columbia government agencies, the Western College of Veterinary Medicine, and the reference laboratories branch, investigation of the bighorn sheep mortality problem was begun.

FIELD SERVICES

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FIELD SERVICES

EXTENSION DIVISION

Through the department's network of 66 district offices within six major agricultural regions, the extension division maintained its traditional role as the direct contact with primary producers.

Demand for programs, services and information achieved an unprecedented high of near 350,000 individual client contacts by district agriculturists during the year. This represented a 10 per cent increase over the previous year. Considering that in the previous year nearly 52,000 contacts dealt with the beef and sheep support program, the number of extension contacts for 1982-83 represents a 24 per cent increase over 1981-82. Increased farm family participation was reflected in a 10 per cent attendance increase at courses and meetings over the previous year. In total, 1,682 educational events were attended by over 58,000 participants.

Details of the programs and the type and range of inquiries are shown in the graphic table accompanying this report. The table summarizes district agriculturists' consultations with producers for 1982-83.

The past year saw a significant increase in the number of programs planned by district agriculturists in consultation with local producers and resourced in smaller group seminars with the district agriculturists themselves in the teaching/instructor role.

The number of districts collaborating on major sub-regional extension activities also increased. More husbands and wives attended extension events together and audiences became noticeably younger. The division encouraged this since current economic and agricultural conditions placed particular hardship on recent entrants in farming.

District agriculturists continued to take extensive advantage of regional and provincial specialists to resource programs, and made liberal use of leading producers in both resource and advisory roles because of their seasoned and demonstrated practical experience.

During 1982-83, the concept of on-farm demonstrations was significantly enhanced through the introduction of the Farming for the Future on-farm demonstration program. Sixty-one projects were approved. On-farm demonstrations enabled farmers and farm organizations to participate with regional staff and research scientists in introducing new research results.

Consistent with the department's emphasis to provide producers with management strategies and alternatives, increased priority was given to farm business management. Field staff reported a determination by producers to improve management practices and search out the best technology to obtain optimum returns and ride out the period of high input costs and interest rates along with declining crop returns.

Statistics revealed a 38 per cent increase in farm business management consultations over the past year along with a 10 per cent increase in education courses and attendance in subjects relating to farm business management, finance, credit and marketing.

The pattern of increased levels of farm business management consultations is shown in the accompanying table comparing the regional client contacts on farm business management, finance, credit and marketing over the past two years. Significant increases were particularly notable in regions 3, 4 and 6.

The extension division also continued to co-sponsor the popular conference Managing Agricultural Technology for Profit with economic services and the home economics branch. Several similar regional conferences were also organized.

During the year, 51 individual names of homes were registered under The Names of Homes Act which continued to be administered by the division.

The division co-produced the documentary film "The Reason Why" to portray the significance of agriculture in our economy. It was shown across the province on prime time TV during Agriculture Week and made available to the public through the department's film library.

During the year, 10 graduates were recruited from the University of Alberta and placed in offices as district agriculturists-in-training.

Two major in-service training programs for staff were conducted on a co-operative basis with the staff from the home economics and 4-H division. The first was the communication skills workshop, attended by 24 staff members with over six months' experience.

The second major in-service training program was the program planning and evaluation workshop. Twenty-four staff members with over one and one-half years' experience participated.

The *Trainer's Manual* and its companion, *Trainee's Manual* were developed and distributed to staff. These publications included guidelines, procedures and content for training.

Twenty-one district agriculturist seminar papers were presented during the year.

Staff turnover was significantly lower than in previous years with eight district agriculturist promotions, retirements and resignations during 1982-83.

Media Extension Work and Major Advisory Meetings by District Agriculturists (Provincial Totals)

Media

	1981-82	1982-83
Newspaper columns	2,498	2,390
Number of newspapers	1,129	1,198
Circulation	224,384	321,138
TV programs	97	89
Radio broadcasts	669	710
Publications distributed	103,334	103,945

Advisory Meetings

	1981-82	1982-83
Agricultural service boards	698	717
Agricultural societies	308	370
Agricultural development committee	342	407
Seed cleaning co-op meetings	546	687
Extension advisory committees	172	173

Training and Development Branch

The branch worked in five main areas: farm training programs, leadership, agriculture law, extension liaison and co-ordination, and agricultural education.

The farm training section included the green certificate program and the Alberta-Hokkaido exchange program. Significant progress was evident in each area.

The green certificate program continued to offer training in beef, dairy, sheep, swine, dryland and irrigated crop farming. During the year 165 training positions were maintained. Development activity centred on two aspects: production of an administrative guide for trainers and trainees and completion of a slide/tape for orientation of test panels.

One hundred forty-nine certificates were granted to successful trainees during the year, bringing the total to 821 since the program began in 1975.

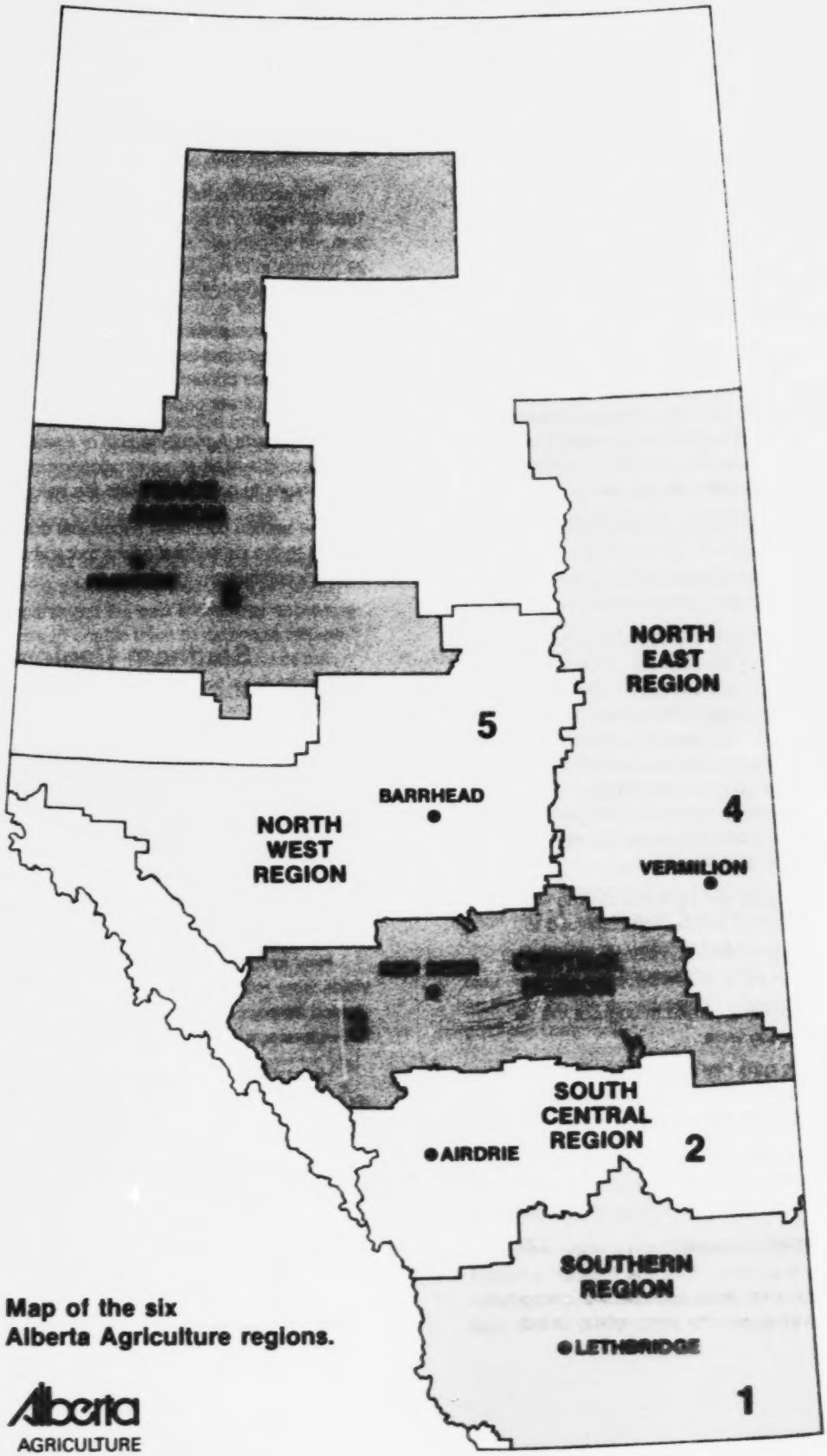
	1982-83	1975-83
Level I	121	619
Level II	23	172
Level III	5	30
	149	821

The Alberta/Hokkaido international agriculture exchange program expanded in both numbers of participants and areas of agriculture. Eleven Japanese exchangees were placed on dairy and beef farms in early April, 1982. Ten Alberta exchangees were placed in Hokkaido.

The ninth Hokkaido exchange professor was placed in the animal science department at the University of Alberta.

Agricultural tours were hosted from Japan, Korea, Iceland and Germany.

The leadership and training specialist responded to 117 requests to conduct workshops and make



Map of the six Alberta Agriculture regions.

Alberta
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presentations during the 1982-83 year. Most were to producers and their families while five requests were to work with department staff. Management skills or interpersonal relationships were the topics addressed on each occasion.

The significant difference this year was the marked increase in requests for on-farm consultations. There was a growing concern among producers about their ability to successfully and effectively work with their family members and non-family hired help.

Agricultural service boards and producers became increasingly concerned about their administrative and communication skills. Producers grew very conscious of the need for good hired help to improve production and income. In addition, the economic pressures seemed to bring many family members home to the farm, thus the urgency to eliminate friction and conflict that often accompany multi-family farm operations.

The agriculture law section concentrated on demonstrating to the agricultural community the importance and necessity of practising "preventive" law in all farming and business operations.

The main areas covered included financial and farm business arrangements and their consequences; contract law in relation to mortgages, debentures, personal guarantees, leasing arrangements and purchase agreements; farm taxation; estate planning including capital gains implications, retirement planning, family peace, will law; property ownership arrangements; insolvency law; divorce and matrimonial property law; property disputes including fence line problems and trespassing laws.

Along with lectures and seminars dealing with the above-mentioned topics, this section continued to devote much time and effort to follow up individual consultations with people with specific problems.

The major programs carried throughout the six regions by this section were:

— farm law seminars	— 140
(attendance)	— 5,000
— client interviews, telephones calls and correspondence	— 2,275
— departmental inquiries	— 228

Informing the agricultural community of changes in agricultural legislation was the responsibility of this section since no other agency, public or private, provided this service.

The agricultural education section maintained liaison with institutions and agencies involved in agricultural training.

The section published the home study fact sheet for 1982-83 regarding agricultural and rural topics. It featured 40 courses written by Alberta institutions and 28 courses in horticulture by the University of Guelph available through Olds College.

The section participated in career planning days at 13 high schools in Alberta. A pamphlet on careers in agriculture was printed, outlining technical and professional career opportunities.

The Alberta Agriculture Hall of Fame selection committee reviewed 16 nominations and recommended four persons to be inducted into the hall of fame.

The section continued secretarial duties with respect to the agricultural education and rural extension advisory committee.

Southern Region Lethbridge (Region 1)

Precipitation patterns in the region from October 1981 continued through to the spring of 1983 where many of the eastern districts recorded higher precipitation than normal. Below normal precipitation was recorded in the western districts. A cool showery spring in 1982 and a cooler than normal growing season both delayed spring seeding and affected the yields of all crops.

Heat loving vegetable, specialty and pulse crops yields were reduced, while cereals and forage crops yielded average or better. Fall seeded crops were above average in quality and yield.

Hailstorms were reported in all districts in the region with some areas in the counties of Warner, Vulcan and Lethbridge suffering severe losses from three storms in July. These were followed by an earlier than usual frost in the northern and eastern areas which adversely affected both yields and quality.

Prices for all crops declined during 1982 causing producers concern for their financial security.

The livestock sector fared somewhat better than in 1981-82. The province's grant program to cattle and

sheep producers enabled producers to avoid making decisions that would have reduced their breeding stock.

Declining grain prices and a good supply of forage, along with a mild winter, enabled beef producers to retain and feed out their stock. Cattle prices gave producers a good return under these conditions. Hog producers also had a generally successful year and increased breeding herds in the process. Dairy and sheep producers attempted to increase their production base, especially those with smaller and less productive units. Quota problems of new entrants or those trying to build up herd size caused financial hardship and sheep producers found themselves in a low price cycle for most of their 1982 lamb crop.

A significant increase was recorded in rural and urban market and home garden vegetable production. Requests for information on production and marketing were served. The number of farmers' markets and total volume of sales increased in this area in 1982.

The region's field staff reported a determination on the part of producers to improve their management practices and search out the best technology applicable to their operations to enable them to maximize returns. Good production, improved efficiency and use of their own resources allowed most producers to maintain economic viability. They did not spend money on inputs or equipment that weren't absolutely necessary. As a result, the service industry and equipment dealers had reduced sales and revenue, with some struggling to remain viable.

District agriculturists and specialists responded to producers' requests for the best production and marketing information and demands for financial and management guidance. Attendance at workshops and extension programs that addressed those needs increased significantly over previous years.

The region's district agriculturists and livestock specialists promoted the department's animal health home study program aimed at all types of livestock and poultry. Over 600 producers took the series of lessons and attended a series of regional seminars for each type of livestock.

The year began with 21 trainees on the green certificate farm training program. By mid-year the number increased to 32. Over the year 14 new trainees were brought on farms to train. Sixteen level I and six level II trainees graduated mainly in irrigation, beef, and crop production skills. Three trainees were from the Blood Reserve, training on Blood Bands farms.

Ag-Expo, held in March, continued to prove very popular, drawing exhibits from all four western provinces and neighboring U.S. states. Attendance totalled 97,000 for the four days.

District staff stepped up use of all forms of media and newsletters to inform the farming public of relevant research and technology. The television program "Agri-Vision", developed by the region's field staff in co-operation with CFAC-TV, was aired for one-half hour each week.

All agricultural service boards, with district agriculturist assistance, increased their use of field plots to demonstrate new varieties of crops, the best fertilizer practices and herbicide use. The department's new on-farm research demonstration program with Farming for the Future funding provided grants to producers who wanted to demonstrate the benefits of new technology. This program proved popular; field staff submitted 15 applications for projects at 21 sites – all of which were approved.

District agriculturists continued to support agricultural societies' exhibitions and fairs to help improve the viability of agricultural societies. Co-operative seed cleaning plant boards received similar service and guidance.

Increased specialist and district agriculturist attention was devoted to programs concerning soil drainage, soil salinity control and land reclamation. The practice of summerfallowing was seriously questioned as it was recognized as a major contributor to the problems. Farmers used crop rotation and deep rooted forages to control salinity and reclaim land lost to production. Drainage of areas where the problem was most serious was studied and supported.

Demand from local planners for agricultural data on land proposed for subdivisions was provided by field staff through the department's representatives on the planning commissions.

Weed control programs and crop pests concerns were identified and support was provided to agricultural service boards and producers to cope appropriately.

Knapweed eradication was established as a priority and received the support of all producer and regulatory agencies and the public.

The European corn borer was identified in the Medicine Hat area and as far west as Bow Island, resulting in scientists, specialists, and district agriculturists co-operating on a program to minimize

damage to corn produced for fresh and canning markets.

Verticillium wilt in alfalfa fields under irrigation was also a serious problem that received research and management attention.

A meeting involving the management and board of the Alberta Hail and Crop Insurance Corporation, members of agricultural development committees and the executive of seven special and pulse crop organizations was held to look at deficiencies in the corporation's insurance program.

South Central Region Airdrie (Region 2)

The crop year of 1982 got off slowly with a moist and cool May. Wind erosion was again a problem in various parts of the region. Late spring frost damaged some of the canola crop.

Crop yields were satisfactory throughout most of the region. Reports of light bushel weights of barley were common in the western portion of the region. Crop yields were better than average in the eastern half of the region.

Good weather lasted through harvest and fall field work.

The number of acres seeded to major crops was relatively constant from the previous year. Specialty crops found little favor with producers.

Interest in basic farm management skills increased significantly during the year. Topics like record keeping, record analysis and financial management found favor. Topics such as income tax and estate planning continued in heavy demand.

Livestock water pumping was adequate. The provincial pumping program was used to fill approximately 20 dugouts, mostly in the districts of High River and Drumheller.

The feed situation, helped by an open fall and mild winter, was generally good. The feed freight assistance program applied to the eastern portion of the region.

Cattle feeders had a good year. Many producers retained the 1982 calf crops to feed out themselves because of the high volume of grain on hand and the low grain prices. The U.S. grain policy, which caused higher feed prices, made feeding less attractive this year. Two smaller packing plants and one auction mart serving this region closed their operations.

Interest increased in establishing or expanding hog operations. This resulted from the view that hogs might be the only viable opportunity through which to market grain.

Dairymen found themselves in an adjustment period as milk supplies and demand for milk were not compatible. Some dairymen faced tough times as a result of low productivity, a low degree of management, or unfortunate decisions made without anticipating this situation.

The beginning of the year saw staff still involved with the completion of the beef and sheep support program.

With short notice before spring work, an effort was made to establish some projects for the Farming for the Future on-farm demonstration program. During the year, 12 projects began, one was pending, and four were recommended for approval by the regional review committee. The projects ranged from soil and moisture conservation demonstrations to preconditioning of cattle. The grants ranged from $75 to $6,950.

The region had two main committees: the soils committee and the farm management committee.

The soils committee concentrated on gearing up for the "Keep Your Stubble Up" campaign to gain increased visibility prior to seeding in 1983.

The farm management committee concentrated on three-day courses covering farm accounting, records analysis and financial management. Once a few courses were promoted and held, word-of-mouth created a demand. Twenty-five such courses were held in the region.

The animal health home study course attracted 585 registrants from this region, considerably below expectations. Many people not registered in the course attended the meetings held in conjunction with the course, however.

Staff co-operated with local organizations in holding meetings concerned with the Crow rate issue. Some meetings were held following the Gilson report and some after the early February announcements by the federal government. Interest in meetings waned as farmers prepared for the seeding season.

Five dairy Production Plus clubs were organized.

The Alberta barley futures Calgary exchange came into being and meetings were held to explain its

services. The volume offered was satisfactory but more buyers would have been helpful.

The preconditioning program for cattle resulted in a price advantage at some sales. Some producers used only pre-immunization instead of the entire preconditioning program.

The green certificate program received acceptance by both farmer-trainers and trainees beyond the department's capability to fund this program. Some farmer trainers were willing to have their employee on this program without benefit of funded assistance.

The interest in skill courses declined. Welding workshops, however, continued to be popular.

The Alberta Farmers' Conservation in Crop Production Association, which was interested in restricted tillage methods both from the standpoint of cost and soil conservation, worked in closer liaison with region 2 staff.

Surface rights groups demanded resource input from department staff with an interest in compensation from resource development and exploration companies.

Close liaison with the Chinook Applied Research Association continued. The local support and keen interest in their projects were very evident.

Agricultural service boards were very conscious of selecting their projects on a priority basis, because the local tax load was of concern.

In region 2 the district agriculturist staff turnover was the smallest in years. One district agriculturist left and was replaced.

Central Region
Red Deer (Region 3)

Producers were concerned about falling prices, restrictive quotas, cash flow problems, Crow policy and rising production costs.

Staff concentrated their efforts on production, cash flow, management, marketing, land and water management, and survival of the rural community. The region put on over 1,157 education courses of which 432 were directed by district agriculturists. A total of 18,520 people attended the courses.

Courses ranged from one-day seminars to lengthy series. Some of the noted courses were the hog management series in Camrose, a grain marketing seminar in Rimbey, a two-family farm seminar in Red Deer, "Darn Those Taxes" in Wetaskiwin, the Innisfail agricultural production school, and summerfallow vs. continuous cropping in Coronation. The region introduced a modular education program for beginning farmers in the Sedgewick, Wetaskiwin and Rocky Mountain House areas.

Rural producers used district agriculturist advisory services on more than 60,000 occasions for production, management and marketing information. The district agriculturist offices responded to 24,752 office inquiries by interview and 31,116 phone calls. The average district agriculturist visited over 145 farms to assist central Alberta producers with production and management practices.

The green certificate farm training program operated at full capacity. At the time of this report 30 farm trainees were being trained within the region.

Major events hosted by the region included provincial conferences for the Agricultural Development Corporation, agricultural service boards and livestock outlook, a weed fair, the Alberta Pork Congress, a two-family farm seminar, an Alberta producer car meeting and the fifth annual feedlot management seminar.

Major new regional programs included the farm problem unit, beginning farm program, seed plant flow analysis, preconditioning program, Camrose drainage program, 100 Bushel Barley Club, and "Survive and Thrive" in the east country.

Demonstration plots were an important education method, showing, among other things, reclamation, deep plowing, minimum tillage, use of herbicides, and Ralgro trials. The addition of the Farming for the Future program to the region resulted in 16 projects being approved and 30 producers being involved. The projects ranged from developing a hay swath turner to bin skirts to high moisture grain.

District agriculturists continued to work on agricultural service boards, seed plant committees, agricultural development committees, agricultural societies, range patrol committees, farmers' market committees and inter-government agencies. These took an increasing amount of time with 459 meetings during the past year.

Northeast Region
Vermilion (Region 4)

Extension staff activities in region 4 focused on two major areas – technology transfer and farm financial management. Maintenance and support of the family farm were over-all objectives

Commercial crop production continued to be the major area of client inquiry and contact. Staff dealt with a large number of herbicide investigation calls. In the fall, frost damage to crops produced another high level of calls. The most significant area of increased interest was forage crop production. Continuing near-drought conditions created a high demand for assistance on grass, legume and cereal forage production.

Interest in new crop varieties was high as farmers searched for ways to improve the efficiency of their production. Increased interest in continuous cropping was evident in most districts. A major two-day seminar on continuous cropping, involving four districts, was held in the Wainwright district. Two hundred farmers attended each day.

On-farm demonstration projects were developed in a number of districts. Projects ranged from market garden technology to solar heating for farm workshops to comparison of barbed and smooth wire fencing for cattle. This program was very effective in demonstrating new technology to farmers.

Technical skill courses on engineering or mechanical topics were again very popular. All districts reported high interest and enrolment in these courses.

In the livestock area beef and dairy cattle rations and feeding programs were of primary concern to producers. Shortages of hay across the region resulted in an increased use of grain and straw. Producers were concerned about ensuring adequate nutrition for their cattle. Dairy production efficiency increased during the year. A very successful dairy Production Plus club operated in the St. Paul district. Its success led to plans to set up two other clubs.

The depressed economic situation during the year produced a large increase in requests for information and assistance in farm financial management, with the greatest increase in credit and finance. Staff responded to this demand with a wide variety of meetings, courses and workshops. Two major seminars were held during the year. A two-day seminar, "Planning for Profit", attracted 160 farm people, mainly couples, in Wainwright. A one-day seminar, "Your Farm, Your Money: Today and Tomorrow", in St. Paul was attended by 120 farm people, also mainly couples.

Several farm record keeping courses were held during the year with good attendance. Region 4 initiated a program whereby all new Agricultural Development Corporation beginning farmer loan recipients were offered the opportunity to have a farm management technician work with them to develop a record keeping system that matched their needs. Response to this new service was very good.

District agriculturists developed and put on many district courses and meetings on topics related to financial management. Most them focused on management in difficult financial conditions. Staff conducted 1,412 interviews on farm management and 1,410 interviews on credit and finance – an increase of 38 per cent and 26 per cent over the last year respectively. Extensive use was made of newsletters, newspaper columns and radio to supplement other activities.

Continuing support and involvement was evident with agricultural service boards, agricultural development committees and municipal seed cleaning plant boards.

The other major activity of extension staff in region 4 was with the green certificate farm training program. Training on farms continued at a high level. On-farm training on Indian reserves increased greatly, requiring a second regional farm training specialist. The use of training workshops for both trainees and trainers was expanded. During the year 21 level 1, two level II and one level III certificates were issued to successful trainees. Applications to join the program increased by almost 100 per cent this year. Quota and financial limitations restricted any significant increase in the number of training situations.

Over-all, district staff reported a 24 per cent increase in client contact during the year. This was particularly significant since the previous year included figures for the beef cattle and sheep support program, with no similar program this year. The most significant increases occurred in the areas of economics (30 per cent), engineering (17 per cent), and crops (15 per cent). District agriculturists made farm visits to 749 new clients, an increase of 17 per cent.

Northwest Region Barrhead (Region 5)

Drought throughout June, and widespread early frosts had a detrimental effect on crops. The drought caused uneven germination of spring sown crops and curtailed forage growth, resulting in severely overgrazed pastures and a 50 per cent reduction in first cut hay yields. Later rains in all areas except the northeast portion of the region resulted in surprisingly good recovery in annual crop growth and second cut hay

crops. However, prospects for near normal cereal and canola yields were reduced by a general late August frost which caused both yield and quality losses.

Fortunately many of the producers in the northwest region diversified operations and the frost-damaged annual crops were salvaged for livestock feed. The 1982-83 winter was relatively mild and livestock generally did well. The light snow throughout the region melted quickly so that calving on most farms occurred on dry ground, resulting in below average incidence of scours.

The cost-price squeeze experienced by farmers in 1981-82 continued in 1982-83. While production cost increases in the area of interest rates and petroleum based inputs moderated, severely depressed grain prices and low delivery quotas limited cash flow. The dairy quota shortfall, especially for new entrants, was of great concern to local producers.

Lower grain prices and marketing difficulties for barley encouraged expansion of hog operations. Calf and feeder cattle prices remained stable also, because of the grain situation and the reduction in interest rates. This situation was somewhat encouraging to cow-calf producers.

Agricultural Development Corporation lending activity slowed during 1982-83, with 223 loans submitted for a total value of around $29 million. This compared with 290 loans during 1981-82 valued at $38 million.

The effects of the downturn in the economy softened the demand for land, and prices correspondingly fell by as much as 25 per cent.

Staff in the region conducted 18,629 office interviews and responded to 26,563 telephone calls. These contacts covered a wide range of production, management and marketing enquiries. Similarly, 3,302 farm calls were conducted in these areas.

In total, 302 educational courses were conducted, attended by 8,995 producers. A wide range of production areas, financial management, marketing and skill training was covered.

Topics for sub-regional and regional programs included "Managing Your Money Wisely", "Farm Law, Hard Times and You", "Keeping The Farm In The Family", and "Can Two Generations Farm Together?" These programs were directed at the entire farm family and attendance in most cases included several family members.

Nearly 25 per cent of the educational seminars conducted were in the areas of farm business management, credit, finance and marketing. Sixty-seven courses in these and other closely related areas were completed with a total producer attendance of 2,318. In addition, 8,283 producer contacts were made in these subject areas through office visits, telephone contacts and farm calls. Twelve regional costs and returns data studies were updated to assist producers in making management decisions.

One of the highest regional production priorities was the matter of improved integrated pasture management, addressed at 12 seminars. Several staff members developed a comprehensive pasture management manual to supplement the courses and to provide follow-up reference material.

Several district and regional staff members continued to be heavily involved in demonstrations and field applied research projects. Work with agricultural service boards and forage associations in this regard was expanded. The development of the on-farm demonstration program to expand field research and demonstrations was widely applauded by producers and staff members. Sixteen regional projects were started.

Expansion in several livestock enterprises resulted in numerous requests to the regional engineering staff for information on planning layouts, manure handling systems, heating and ventilation and water supply systems. Acreage holders in the districts surrounding Edmonton continued to place heavy demands on staff for assistance with water treatment problems.

District agriculturists continued to provide input into the subdivision process and in the development of local land use by-laws. One staff member remained heavily involved with the three regional subdivision approval authorities, ensuring that agricultural concerns were recognized.

District staff attended 762 meetings as a result of involvement with agricultural fairs, seed cleaning plants, range patrols, farmers' markets, agricultural development committees, agricultural service boards, further education councils, rural crime watch groups and 4-H clubs.

The green certificate program in region 5 was fully utilized during 1982-83. The quota of 30 funded training situations was maintained and a total of 33 certificates issued. Trainees generally did very well at testing.

The number of 4-H clubs in the northwest region declined slightly during 1982-83 (from 121 to 114) but

the membership remained constant at 1,997. Multi-project clubs, light horse, beef, and clothing clubs continued to be the most popular. Several district agriculturists, district home economists, regional specialists and regional 4-H clubs participated in a major shopping mall promotion during Agriculture Week.

Peace River Region Fairview (Region 6)

Region 6 designed activities and programs to achieve the objectives of the department, emphasizing increased agricultural production and efficiency, improved farm incomes, family farm development and the development of rural communities.

An expansion of demonstration plots with the co-operation of the agricultural service boards was undertaken as a follow-up to winter meetings. Major demonstrations consisted of comparative barley, canola and forage plots. Weed control plots, plant disease control plots and pest management plots were also placed throughout the region.

Despite the abnormally dry conditions these plots clearly demonstrated new varieties and new production techniques to many producers who attended the tours arranged by the districts. Attendance at seminars and tours dealing with cereals, canola and specialty crops jumped by 200 per cent, perhaps because of declining commodity prices and higher input costs.

Beef cattle producers maintained their interest in a pre-conditioned calf sale and contributors from the County of Grande Prairie and other districts provided some quality calves for a successful sale in Grande Prairie. Requirements for feed freight assistance were down significantly from the previous year.

Regional staff were extremely active in the area of farm financial management and credit. Forty seminars were undertaken with a total attendance of approximately 800 producers. More important, staff had individual counselling sessions with approximately 3,000 farmers, a 175 per cent increase over the previous year.

Region 6 co-operated with Fairview College in introducing a successful farm financial management program.

Over the past two years interest in farm financial management by farmer clients has increased by approximately 400 per cent.

Staff involvement with agricultural service boards expanded to the extent that many agricultural service boards have policies and programs in place to deal specifically with weed control, including enforcement, cereal and canola demonstration plots, roadside weed control and soil conservation. The most significant achievement was the agricultural service boards' recognition of their role in the prevention and control of water erosion. With the appointment of the regional soil specialist, some agricultural service boards utilized the maximum grant available for the soil conservation area program.

Farming for the Future on-farm demonstrations gained momentum this fiscal year with eight major projects approved in the areas of livestock production, soil conservation, energy efficiency, farm machinery improvement and improved honey production.

Several major meetings on crop insurance, attended by the board of directors of the Alberta Hail and Crop Insurance Corporation, were held throughout the region following the drought assistance program. A significant increase in producers purchasing crop insurance was noted last spring.

Generally, client contacts were up significantly at both the district and regional offices. Office interviews and seminar attendance increased by 15 per cent over the previous year while farm visits remained approximately the same. The clerical support staff were extremely active in that they had 12,748 interviews and 10,660 phone calls.

The fiscal year 1982-83 was difficult for many Peace River farmers. However region 6 staff met most of their concerns with valuable technical and financial information and advice.

Key To District Office Monthly Reports – (See graphic table on page 58)

COMMERCIAL CROPS – management, rotations, culture, varieties, soils, pests, weed control, fertilizers, diseases, harvesting, storage and protection, and related policies and services i.e., all aspects of production, and protection technology of these crops. Also crop and hail insurance, metrics.

LIVESTOCK – management, husbandry, breeds, breeding, nutrition, record of performance improvement, pest control (except diseases), brands products, shows, programs and related policies, i.e., all aspects of production and protection, technology and related policies or services.

HORTICULTURE – all non-commercial operations and contacts relating to gardening, trees, shelterbelts, landscaping, ornamentals, pests, diseases and all aspects related to production, protection and services, i.e., includes farms, acreages, and urban.

ECONOMICS – *Farm business management* – production economics, agribusiness, records, bookkeeping, business analysis, agreements, contracts, estate planning, taxation, wills, management of capital, labor and other resources and all related programs, policies/services, workers' compensation, computers. *Credit/Financing* – credit, capital, agencies, loans, Agricultural Development Corporation, insurance, mortgages. *Marketing/Processing* – information, outlook, agencies, standards, grades, transportation, distribution, policies, programs, legislation, products, promotion, boards, commissions, supply/demand, raw materials, future prices, contracts, quotas and similar related.

ENGINEERING – *Buildings and utilities* – Farmhouse and all other buildings, plans, materials, contracting, construction, heating, electrical, ventilation, water, sewage manure disposal, codes/regulations, protection including insurance, utility costs and services, wells, dugouts and lagoons, metrics. *Drainage/conservation* water management, erosion control, soil salinity, conservation, alkali, soils problems, re-grassing, reclamation and related policies, programs and services.

PUBLIC SERVICES (AND REFERRALS) – Public contacts and enquiries for general/farm/agriculture information. Alberta Agriculture programs, programs and services of other departments/divisions, etc. Public relations, schools, casual office visitors, referrals, tours, itineraries, metrics, consumer information other than home economics, etc.

COMMUNITY SERVICES – contacts and services related to agricultural societies, fairs, exhibitions, facilities, prize lists, classes, awards, shows and public relations with chambers of commerce, service clubs, farm, commodity and other rural organizations.

MISCELLANEOUS – for items that do not fit into other categories.

LAND USE/SURFACE RIGHTS – all matters related to agricultural/non-agricultural land use; subdivision development, annexation, property taxation, environment, right of entry, surveys, land classification, assessment, agreements compensation, reclamation, protection, etc.

HOME ECONOMICS/FAMILY LIVING – all aspects of home economics resource and DHE support. Food, nutrition, clothing, textiles, appliances, consumer information, home and family records, personal development, management, consumer credit and protection, etc.

ANIMAL HEALTH/VETERINARY – animal health, diseases, nutrition-related problems, poisoning, meat inspection, protection, drugs, veterinary supplies, services.

4-H ACTIVITIES/RESOURCE – full range of various 4-H contacts and support, projects, programs, leadership, and all involvement in resourcing programs.

FARM TRAINING/GREEN CERTIFICATE – on-farm training, beginning farming, trainees, training farms, programs, interagency contacts, skills, tools, evaluation, testing, training plans, courses, modules. Includes exchange programs and agricultural career counselling, agricultural curricula, Land and Life, etc.

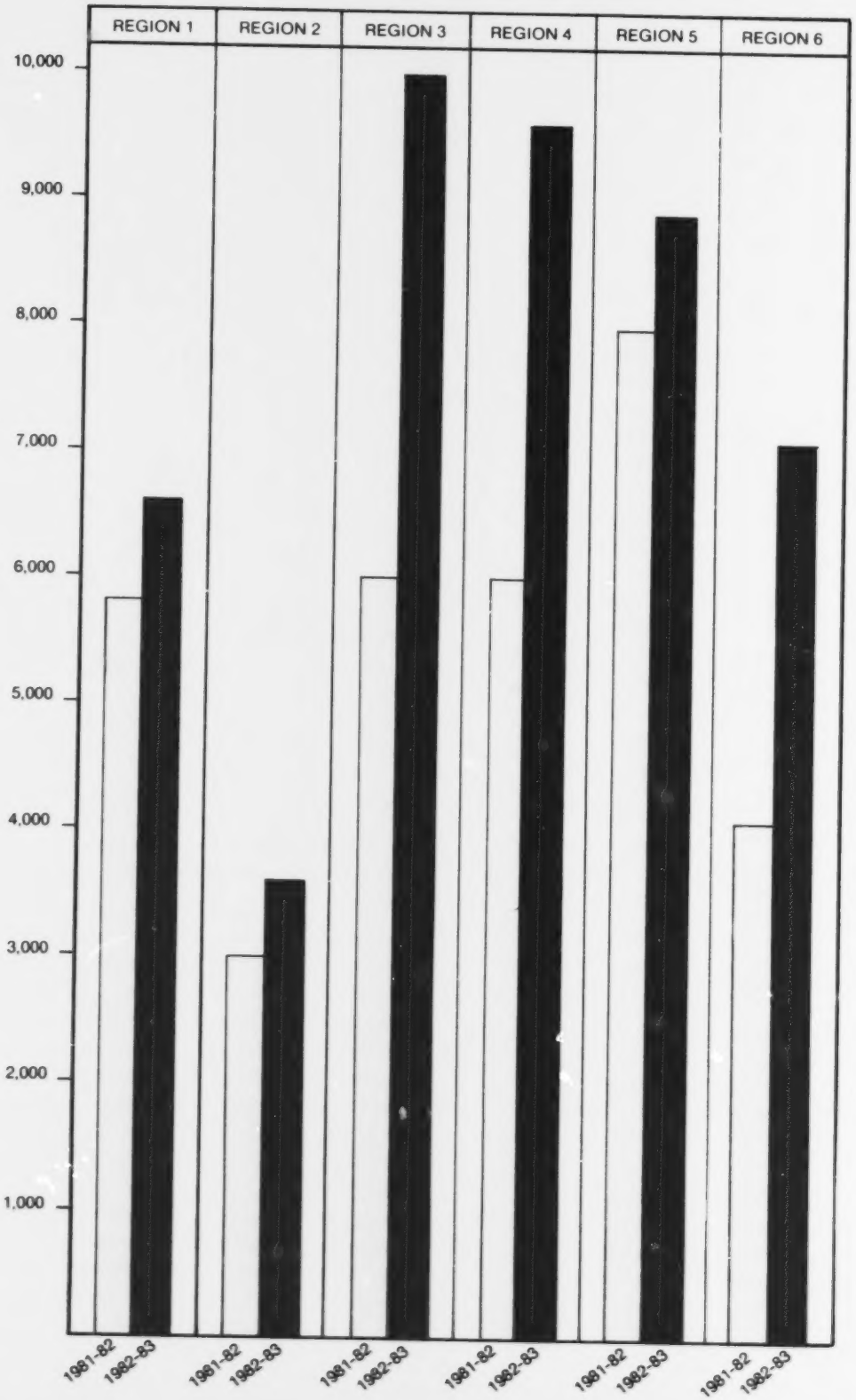
IRRIGATION – water management, licensing, distribution, power systems, irrigation methods, sprinklers, pivots, control structures, fertigation, soil salinity and drainage related to irrigation, costs, benefits, economics and policies and programs.

EXTENSION DIVISION
DISTRICT OFFICES STATISTICAL PROFILE OF SUBJECT AREA ACTIVITIES (PROVINCIAL TOTALS)

SUBJECT AREAS OF CONTRACT	TOTAL CLIENT CONTACTS (INDIVIDUAL)	TOTAL CLIENT CONTACTS: OFFICE INTERVIEWS	TOTAL CLIENT CONTACTS: TELEPHONE CALLS	TOTAL CLIENT CONTACTS: FARM VISITS	TOTAL CLIENT CONTACTS: LETTERS	COURSES & MEETINGS: NUMBER	COURSES & MEETINGS: ATTENDANCE
TOTAL CLIENT CONTACTS:	349,869	128,637	159,958	19,778	41,496	1,682	58,037
CROPS — CEREAL CROPS	43,035	13,442	22,312	4,387	2,894	190	9,023
CROPS — FORAGE CROPS	37,009	19,814	12,628	1,818	2,549	90	2,488
CROPS — OILSEED CROPS	10,808	3,573	5,317	1,043	875	33	1,629
CROPS — SPECIAL CROPS	8,450	2,347	4,277	751	1,075	26	1,010
HORTICULTURE	49,794	16,007	26,434	2,227	5,126	183	4,744
LIVESTOCK — BEEF CATTLE	27,565	9,364	12,911	2,147	3,143	182	4,811
LIVESTOCK — HOGS	8,318	3,391	2,903	480	1,644	78	2,231
LIVESTOCK — DAIRY	8,738	2,122	2,865	707	3,044	88	2,503
LIVESTOCK — OTHER	6,795	2,487	3,476	367	465	57	1,495
ANIMAL HEALTH/VET	6,456	2,246	3,096	438	686	62	2,463
ECONOMICS — FARM BUSINESS MGT	23,131	8,038	7,529	803	6,761	224	6,324
ECONOMICS — CREDIT/FINANCE	19,139	7,309	8,920	595	2,315	27	653
ECONOMICS — MARKETING	6,726	3,963	2,061	223	459	52	2,350
IRRIGATION	2,517	875	1,213	193	236	9	340
ENG — BUILDINGS/UTILITIES	13,627	5,647	6,381	775	824	78	1,572
ENG — MACHINERY	6,629	2,490	3,383	450	306	60	1,729
ENG — DRAINAGE/CONSERVATION	6,421	2,419	3,264	415	323	31	1,051
COMMUNITY SERVICES	13,042	4,132	6,184	447	2,299	101	5,176
LAND USE/SURFACE RIGHTS	8,378	2,292	3,356	768	1,962	30	1,191
FARM TRAINING/GREEN CERTIFICATE	2,836	1,019	1,571	119	127	49	1,337
HOME ECOMONICS/FAMILY	5,660	2,313	2,960	18	1,369	13	502
4-H ACTIVITIES	3,237	1,224	1,555	69	389	26	1,343
PUBLIC SERVICE	13,626	5,663	6,774	179	1,010	14	783
MISCELLANEOUS	15,922	6,460	8,498	369	1,615	19	1,289

GRAPHIC SCALE: 1 CM = 5,000 CONTACTS (IND.)

FARM BUSINESS MANAGEMENT CONSULTATIONS*
BY DISTRICT AGRICULTURISTS



*Office interviews, farm visits and telephone calls by district agriculturists on farm business management, finance, credit and marketing.

HOME ECONOMICS AND 4-H DIVISION

The division provided home economics and youth programs to rural Albertans to assist them to develop their abilities to manage the physical, economic and social well-being of their families and communities.

Advisory and educational programs were provided in the areas of foods and nutrition, family resource management, clothing and textiles, housing and family living. The 4-H program was supported through the preparation and distribution of project and program materials as well as conducting of activities in the areas of projects, personal development and leadership.

Two studies, "Recommendations for 4-H in the '80s" and "A Study of Client Needs for Home Economics Education", were completed in the division in 1982-83.

All staff members participated in IDEA '82, a staff development conference featuring extension philosophy, methods and techniques.

Telephone inquiries, office visits and farm visits increased in the home economics branch with the number of inquiries by letter remaining approximately the same as last year. An increase also occurred in the number of educational courses and the number attending the courses.

The 4-H branch reported an increase in the number of inquiries by letter, with telephone inquiries and office visits remaining constant. Farm visits declined.

Responsibility for the nutrition at school program in Calgary and Edmonton transferred to the home economics branch January 1, 1983.

A new position was established for a district home economist to service the Edson district.

Home Economics Branch

The home economics branch, through its network of district home economists, extended a wide range of home economics information and education services to Albertans. In addition to activities planned and implemented in the six regions, some were delivered province-wide.

Alberta Women's Week, a provincial program of the branch, focused on the theme "I Make The Difference." Three hundred fifty women and 70 children gathered at the Olds College in July for this event.

Two public service announcements were produced in co-operation with the broadcast media branch for airing on television and radio. The first encouraged packing a nutritious bagged lunch while the second promoted learning throughout the life cycle. The latter was produced in co-operation with the extension division.

The branch produced a tabloid titled *Countdown to Christmas* for provincial distribution. The theme reflected the current economic climate, and so emphasized doing more with less. Different methods of distribution were used throughout the province and their effectiveness evaluated.

A team of 12 home economics specialists provided support to field staff through training, specialized information, teaching resources and publications.

The home economics extension specialist developed a variety of resources for staff including a trainer's manual for use by experienced district home economists in training new staff. In-service training together with related projects resulted in field staff increasing their skills in group presentations, program planning and evaluation, public relations and writing for newspapers.

Economic conditions led to an increased interest in family finances resulting in the integration of family resource management materials in other subject matter areas through the development of a display, and preparation of program outlines by the family resource management specialists. Similarly, the economic climate prompted food and nutrition specialists to conduct training sessions for staff on food preservation to enable them to answer questions from the public during the preserving season.

Clothing and textiles specialists reported an increased interest in time-saver sewing construction courses and finishing techniques, a reflection of participants' interest in extending the household budget by sewing.

The focus of programming for the family living specialist was the enhancement of the quality of life on the family farm. The issues surrounding the two-generation family farm continued to be important to farm people.

Liaison with and support to the Alberta Women's Institute and Women of Unifarm occurred province-wide. Grants were provided to both organizations in support of

their respective programs. Increasing the leadership capabilities of their membership was the focus of a number of branch programs with these two major rural women's organizations. The branch also supported the Rural Education and Development Association by providing staff to resource their programs, and through branch representation on two of their advisory groups.

Province-wide, mass media were used extensively by field staff to deliver home economics information to clientele. Newspaper columns written by district home economists totalled 2605. With the co-operation of local radio and television stations, district home economists broadcast in excess of 31 hours of radio and 63 hours of television.

The branch completed a major study to determine the home economics educational needs of women and their preferences for methods of program and service delivery.

Southern Region Lethbridge (Region 1)

The emphasis in region 1 was management of time, money and energy, and increased contact with 4-H. Total contacts for the region were up 20 per cent over 1981-82, near the level of 1980-81.

People became more selective in the activities in which they participated. They were concerned about their time as much as their money and wanted value for time invested. Contacts in finance and economics increased 30 per cent. Contact with 4-H members and leaders increased by 40 per cent with emphasis on new clubs and new leaders.

Housing starts increased as interest rates decreased. Interest in energy efficient housing increased with builders seeking for more information on how to save energy.

The Housewives' Conference, a regional conference held annually at Waterton, and a women's conference at Nanton were again held. There was considerable interest expressed in local conferences.

Response to district newsletters was very encouraging. Work with radio stations decreased in some districts. The half hour TV show, "Southern Alberta Magazine," continued with two district home economists sharing the hosting duties. Half the topics were home economics-related and the rest were other topics of interest to farm women. District home economists near Medicine Hat regularly participated in an agricultural television program. Two issues (13,000 copies) of *Made in Southern Alberta* were distributed through local stores.

Nutrition at school contacts were lower as district home economists spent less time in the classroom with the students. Response to this program remained positive.

Contacts in gardening and horticulture were up 50 per cent. These offered opportunity for district home economists to help create awareness of new varieties and appropriate uses for them.

Interest in clothing and textiles rose. People planned their purchases and looked at clothing purchases as investment buying. Lay instructors and district home economists presented a number of clothing construction courses.

South Central Region Airdrie (Region 2)

Family resource management continued to be the focus of district home economist programming. Educational activities reflected the farm family's present and future concern to manage resources wisely, and included "The Great Inflation Fighting Cost Cutting Caper", a "shopper stopper" day, do-it-yourself home decorating, energy conservation, management of the clothing dollar, time management, home gardening and food preservation. Last year saw an increased demand for *Cope.. with Family Finances*, a learning package aimed at helping families organize their financial affairs. In co-operation with district agriculturists and the regional economist, district home economists co-ordinated 21 three-day basic accounting and tax planning workshops for farm couples.

Initiative was taken by all district home economists to work with the regional 4-H specialist, district councils and 4-H leaders in organizing and resourcing 4-H events. District home economists spent a significant amount of time assisting with the 4-H public speaking program, and were recognized as the local contact for the 4-H program in Alberta.

In a continued effort to provide farm families with reliable nutrition information, district home economists initiated a diet and heart disease nutrition forum, a joint programming effort of concerned community professionals. Nutrition Hotline, a series of newspaper

articles, was introduced in two districts and attempted to dispel the proliferation of food misinformation. Nutrition at school has heightened community awareness of agriculture, food and nutrition.

In addition, district home economists expanded the use of educational displays, newspaper columns, grocery-bag stuffers, radio announcements and the Calgary region newsletter to get timely information to farm families.

When requested, district home economists provided program leadership and planning assistance to agricultural societies, agricultural service boards and rural women's organizations. The provincial agricultural service board tour was held in region 2.

North Central Region Red Deer (Region 3)

As changes in the economy continued to emphasize the need for better management of resources -- human, material and natural – district home economists in region 3 responded by focusing their programs and activities on family resource management with the objective of enhancing the quality of life of rural families. Programs such as "Inlaws not Outlaws", "Survive and Thrive," and "Farming Together Without Family Trouble" enabled district home economists to integrate their expertise with that of other department staff in the region. Good family communications, labor management, goal setting and decision making, record keeping and budgeting were highlights of these programs. Programs dealing specifically with clothing, food and shelter emphasized efficient and effective use of time, money and energy.

Involvement of staff on the Alberta Pork Congress board of directors continued, with emphasis on education and consumer awareness. In-store demonstrations provided a new link, not only with local consumers, but with local meat managers and suppliers. Home economists of the region continued to offer support and encouragement to the Alberta Pork Promotors, a group of producer wives who carried out promotion of pork. Leadership, public speaking and effective management courses with this and other organizations were well accepted.

In conjunction with the Association of Agricultural Fieldmen, the regional plant industry specialist and other department staff, home economists of the region planned and resourced the ladies' program of the provincial agricultural service board conference. The theme of this conference was "Agricultural Service Boards Serving People." The emphasis in the ladies' program was on the important role women play in agriculture and in rural communities.

District home economists continued to support the 4-H program with emphasis on leader development and participation in district council activities. There was an increase in homemaking clubs in the region.

The district home economist at Stettler initiated a project using Alberta Agriculture research funds. The objectives of this household cost survey were to compare the cost of running a farm household in east central Alberta to data for urban areas in Alberta and nationally; to compile updated cost figures for use in agriculture loan counselling; to compile relevant data for budgeting programs sponsored by district home economists; and to demonstrate the relationship of home records to farm records.

Northeast Region Vermilion (Region 4)

The emphasis of district home economists in region 4 was to conduct educational programs, provide individual counselling and disseminate educational information via mass media to farm families to assist them in enhancing their quality of life. The services and information to which district home economists addressed themselves were those not readily available in rural communities.

In the area of foods and nutrition, educational information was directed at adult groups, school children, early childhood services and senior citizens. Information on diet, food selection, food preparation, food preservation, use of new food products and Alberta food products was provided. District home economists participated in a regional agricultural service board conference and presented a program on consumer uses of speciality crops.

Assistance to individuals and groups in the clothing and textiles area was given through workshops, demonstrations, educational seminars or on a one-to-one basis. Topics presented included wardrobe planning, pattern fitting, clothing construction, time-saver sewing, clothes for kids, buymanship and handling of fabrics.

Programs on a sub-regional and district level emphasizing financial planning and budgeting were in

demand. Programs focusing on decision making for profit, wills and estate planning, the two-generation farm family, and moving out were well received. Microwave management programs were very popular at the district level. A number of individual clients were assisted with financial planning using the "Cope" series. Consumer product information was provided to individuals.

District home economists provided a number of families with information related to home design including planning for new and remodelled homes, energy conservation and selection of finishing materials for the home.

Together with the regional 4-H specialist, district home economists were engaged in a leader awareness program with 4-H district councils. A regional 4-H leadership workshop was conducted. Other 4-H events resourced by district home economists included 4-H expressions, club week, summer camps, winter camp, public speaking events, and achievement days.

District home economists, with their expertise in leadership skills, program planning and home economics, worked effectively with other agencies in providing assistance in the development of rural communities.

A new approach in program format was initiated in the region. Three highly successful women's conferences were planned and carried out by district home economists and other resource persons. The program for each conference focused on a home economics-related theme.

Northwest Region Barrhead (Region 5)

District home economists in region 5 offered a variety of educational opportunities aimed at providing financial management information and home economics technology useful in maintaining viable family farms and enhancing the quality of life of farm families.

Staff reached people through individual contacts, meetings, workshops and courses. The total number of contacts increased 19 per cent over 1981-82.

Emphasis was placed on programs and information in the management area which resulted in a 41 per cent increase in the use of this service. As a result of lower mortgage rates and new government programs, there was a 34 per cent increase in requests for housing information and development of house plans. Other increases in services were in the areas of food and nutrition, and clothing and textiles.

District home economists continued to provide support to 4-H. Thirty-seven workshops were offered to leaders and members, many of them addressing development of leadership skills. Support which facilitated community development was provided to further education councils, agricultural societies, Women's Institute, Women of Unifarm, as well as other community associations. Staff worked with agricultural service boards and district agriculturists in providing extension programs of interest to the total farm family. Activities sponsored with other Alberta Agriculture staff on a regional scale added an important dimension to the program opportunities available.

Program planning with the extension division resulted in the printing and distribution of *Agriculture and Home Economics Extension Programs – Northwest Region*. A program titled "Keeping the Farm in the Family" provided farm audiences with information on business arrangements, wills and estate planning, farm law, communications and multi-family farms. These programs were followed up with opportunities for individuals to meet with lawyers and other department specialists. Sessions on consumer law and courses in budgeting, record keeping and accounting were offered in keeping with the regional priority.

Other activities included involvement in Agriculture Week, the nutrition at school program and two rural women's conferences. A regional newsletter was distributed to 8,400 families. District home economists were involved in a regional pilot on the use of the microcomputer in the department.

Peace River Region Fairview (Region 6)

"Stress the Positive" was the theme of this year's farm wives' conference held in Grande Prairie. One hundred forty participants travelled from all areas of the Peace region to hear speakers and to participate in sessions related to managing farm and family resources. How to cope with the economy, finances, and technology as well as how to handle family and community situations were popular topics.

District home economists were busiest in the foods and nutrition area. Food preservation was a high priority in the summer and fall. In some districts winter programs on gardening were conducted jointly by

district agriculturists and district home economists. Programs on weight loss and fitness were much in demand. Most districts had a number of groups which requested district home economist assistance on diet planning, food preparation and fitness. Food and nutrition for families was the third area of emphasis. District home economists participated in programs on prenatal and infant nutrition, and did much work with early childhood services groups on food habits of youngsters.

Family resource management programs were varied. Making effective use of appliances was an area of high client demand. People appeared to be very conscious of resource use and wanted to make good buying choices and effective use of household equipment. Most district home economists were involved in record keeping or financial planning programs. Often these were joint district agriculturist/ district home economist ventures with the district home economist handling the setting up of a farm office and discussing the *Cope.. With Family Finances* publications.

Clothing and textile skills courses were in high demand. Clients wanted to be able to make wise clothing choices, and learning to sew assisted them in doing this. The other area of high demand was in wardrobe planning, because of the increase in women entering the work force.

District home economists found many clients in need of assistance in planning for home building or renovating. Clients also requested information on financing and building homes and buying home building products. Information on making existing homes more comfortable both esthetically and in terms of enery use was requested, generally with the proviso that budget be taken into account.

District home economists in the Peace River region were very busy with 4-H programs. The main programming was done in the areas of leader development, effective club and meeting management, and communication. District home economists and the 4-H specialists worked together on these programs. Staff also assisted at public speaking competitions.

All district home economists worked with further education councils.

KEY TO STATISTICAL PROFILE – (see page 65)

FAMILY LIVING: Items relating to individuals and families (communication, development, effectiveness, etc.).

COMMUNITY WORK: Items relating to groups and organizations in the community (special events, societies, agencies, boards, referrals to other professionals).

HOME MANAGEMENT: Resource management, appliances, consumer protection, etc.

FOOD & NUTRITION: All aspects of foods and nutrition except the nutrition at school program.

LOTHING & TEXTILES: Fibres, finishes, fabrics, selection, care, construction, home accessories and textile arts.

HOUSING: Design, materials, construction, home furnishings. 4-H: Councils, leaders, members, promotions, projects, activities and special events.

NUTRITION AT SCHOOL: Contact with parents, students and teachers.

AGRICULTURE RELATED: All items relating to livestock, commercial crops, engineering, irrigation, veterinary, farm training and horticulture.

FINANCE & ECONOMICS: Business management, agribusiness, bookkeeping, credit, taxation, etc.

MARKETING & PROMOTION: Marketing boards, product information and promotion, farmers' markets, etc.

HOME ECONOMICS BRANCH
STATISTICAL PROFILE OF
SUBJECT AREA ACTIVITIES (PROVINCIAL TOTALS)

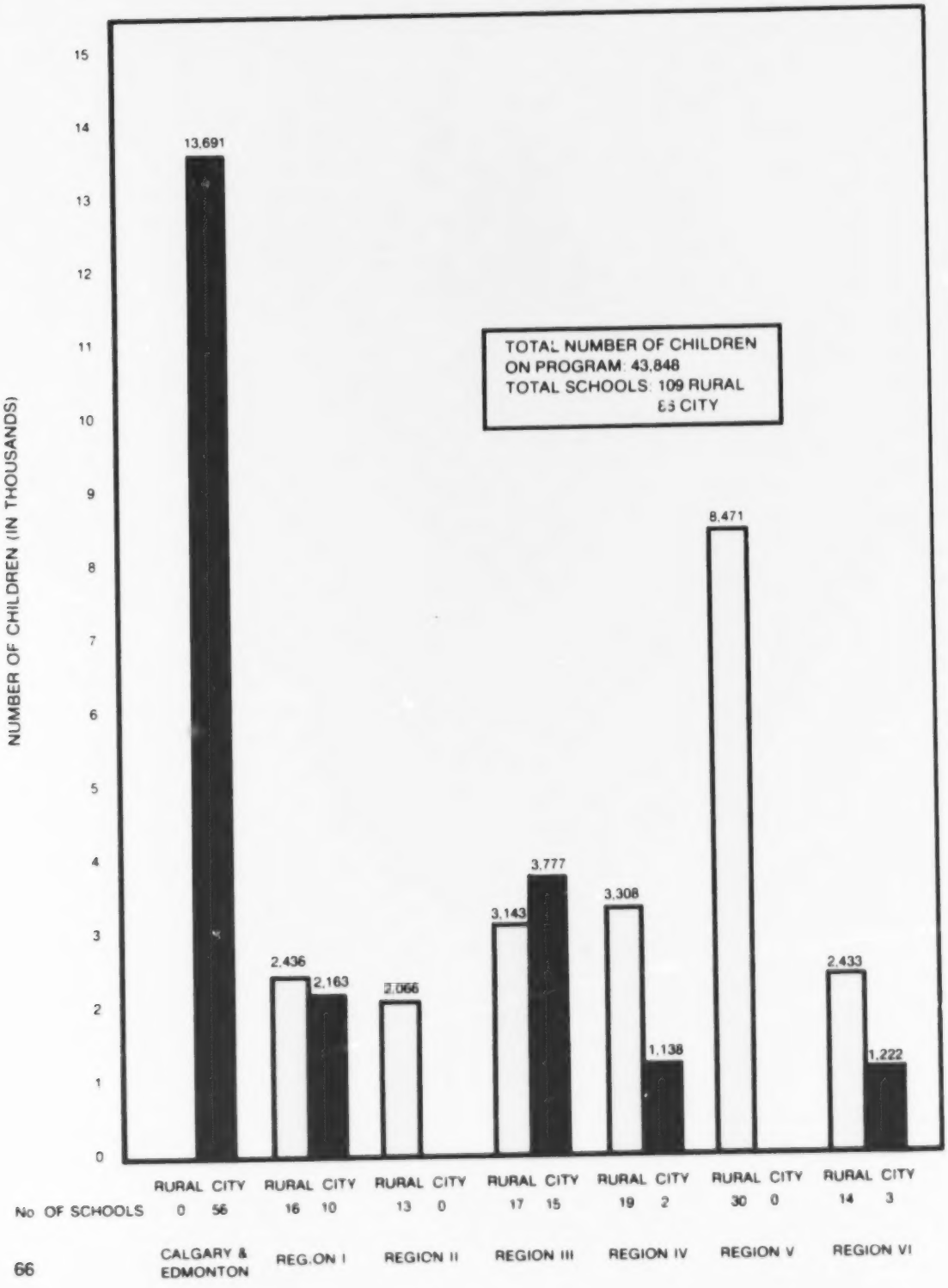
SUBJECT AREAS OF CONTACT	OFFICE INTERVIEWS	TELEPHONE CALLS	FARM VISITS	LETTERS	TOTAL INDIVIDUAL CLIENTS[1]	EDUCATIONAL PROGRAMS: NUMBER OF COURSES	EDUCATIONAL PROGRAMS: COURSE ATTENDANCE
NUMBER OF CLIENTS	27,608	77,544	2,998	31,759	139,909	3,438	70,186
FOODS & NUTRITION	7,956	26,300	392	9,308	43,956	1,224	23,030
COMMUNITY WORK	3,197	10,219	355	4,438	18,209	150	3,866
CLOTHING & TEXTILES	3,176	10,202	261	3,491	17,130	848	11,869
HOME MANAGEMENT	2,854	8,480	172	3,390	14,896	405	7,621
HOUSING	3,478	6,534	702	1,710	12,424	109	2,063
NUTRITION AT SCHOOL	748	4,463	704	4,567	10,480	294	10,901
4-H ACTIVITIES	2,400	4,690	125	2,319	9,534	175	5,759
MISCELLANEOUS AGRICULTURE RELATED	1,683	3,549	222	1,171	6,625	52	1,567
FAMILY LIVING	850	2,140	72	835	3,897	183	3,381
MARKETING AND PROMOTION	130	501	27	699	1,357	21	1,017
FINANCE AND ECONOMICS	348	519	10	349	1,226	36	886

■ 2500 client contacts

YEAR
APRIL 1, 1982
MARCH 31, 1983

[1] FIGURES FOR NUMBER OF CLIENTS ARE LESS THAN CLIENT CONTACTS ONE CLIENT MAY BE CONTACTED ON MORE THAN ONE SUBJECT AREA

STATISTICAL SUMMARY
NUTRITION AT SCHOOL
1982 - 1983



Nutrition at School

In 1982-83, the nutrition at school program, in its tenth year of operation, was implemented in 195 elementary schools in Alberta. The table on page 66 shows the number of schools and students by region and metropolitan areas.

Nutrition at School 1982-83

	RURAL		CITY	
	Schools	Students	Schools	Students
Region 1	16	2436	10	2163
Region 2	13	2066	0	0
Region 3	17	3143	15	3777
Region 4	19	3308	2	1138
Region 5	30	8471	0	0
Region 6	14	2433	3	1222
Calgary			26	7380
Edmonton			30	6311
TOTAL	109	21857	86	21991

Nutrition at school was a nutrition education program integrated into the classroom curriculum and using nutritious dentally accepted food samples as the teaching vehicle. The foods used were, whenever possible, grown and or processed in Alberta. Parents were kept informed about the program and about basic nutrition to reinforce the classroom message and encourage food habits which promote family well-being.

During the past year the nutrition at school core committee focused on the completion of teaching resources and approval of foods to be used in the program. Two new handbooks were developed for staff administering the program.

In January 1983, responsibility for nutrition at school in Edmonton and Calgary was transferred to the home economics branch from the agrifood development branch, bringing this provincial program entirely under the aegis of the home economics branch.

4-H Branch

Throughout the year the 4-H branch continued to serve 8,627 4-H members in 556 clubs. Over 2,300 leaders volunteered an estimated one million hours of time, and sponsorship from the private sector, individuals and organizations was valued at $2 million to $3 million.

Phase III of a research study to evaluate the effectiveness of 4-H and identify client needs was completed and its recommendations put into effect. Shopping mall displays and regular columns in Alberta's weekly newspapers began promoting 4-H to increase community awareness and to recruit more members and leaders. As part of the promotion blitz, the current and immediate past premier's award winners were interviewed by the media.

Delegates from Ontario, Manitoba, Saskatchewan and Montana joined with 290 Alberta leaders at the annual provincial 4-H leaders' conference in Lethbridge.

The 4-H Foundation of Alberta further developed plans for the 4-H Centre at Battle Lake. The proposed development cost was projected at $2.2 million. Fund raising campaigns included grain donations, corporate donations, club donations, sales of six donated calves which amounted to $12,000, and the 4-H brand program for donated livestock. A total of $42,000 was received in donations during 1982 for the 4-H Centre. Over 400 people used the Battle Lake facilities this past year.

The Alberta 4-H recognition award was presented and the recipient became the thirteenth member of the provincial 4-H Hall of Fame.

Twenty-three Alberta 4-H educational scholarships at a value of $14,400 were awarded to 4-H members this year.

Alberta's 4-H Alumni Association continued expanding to meet the demands of increased membership.

Efforts to expand and improve the 4-H project area resulted in the habitat project, designed to help young people understand and appreciate wildlife, thus encouraging them to provide a suitable wildlife habitat on their own land. The project received $28,500 from the Recreation, Parks and Wildlife Foundation together with additional funding and support from Alberta Energy and Natural Resources and Environment Canada.

The 4-H branch and a major pattern company produced a travelling fashion show used by 4-H clubs to learn the basics of grooming and modelling through experience. Project brochures were designed and revised, and kits such as those for quilting and weaving became available. According to statistics, 4-H members were involved in a greater diversity of projects and there was an increase in clubs involving new project areas.

In its twenty-first season, "4-H Clubtime" produced 26 half-hour episodes. Four major TV stations aired the series. The five-minute weekly radio report "4-H News

Roundup" was expanded to a 12-month format and broadcast on 24 radio stations.

The provincial 4-H selections program was held in early May with 136 4-H members attending. Sixty 4-H'ers were chosen to represent Alberta at various provincial, national and international 4-H events. The theme, "On Your Own," was aimed at teaching "survival" techniques to those who would soon be moving away from home to work or continue their education.

The communications festival was a speech education program consisting of participatory workshops and demonstrations. Three festivals were held in November with an over-all attendance of 259 4-H members.

Leader training workshops provided volunteer 4-H leaders with the opportunity to learn, share new ideas on 4-H projects and develop leadership skills.

Calgary hosted the fifth annual provincial public speaking finals.

Three hundred thirty-four senior 4-H members attended Club Week.

Approximately 450 people were involved in the two provincial livestock shows in July. Thirty-eight 4-H clubs participated in the provincial 4-H beef heifer show in Bashaw. Twenty-two dairy clubs took part in the provincial dairy show in Red Deer.

The Alberta 4-H judging team placed in the top five at the Western Provinces Judging Seminar and Competition held at Agribition in Regina.

More than 200 4-H delegates participated in the Open House Canada program last summer. This national youth exchange allowed teenagers to sample life in other parts of Canada.

Sixty-five club members had the opportunity to study environmental concerns at the annual conservation camp which included seminars concerning water, soil, forestry, fish and wildlife, and range management.

Horse Sense '82 and provincial 4-H Expressions brought together 350 members, leaders, and parents. Approximately 40 light horse clubs participated in the horse bowl competition, judging contest, and seminar, as well as the classes for senior equitation, junior showmanship and team demonstrations. One hundred seventy-five participated in the non-agricultural project seminars conducted during Expressions.

The seminar Leadership Through Counselling was held in late June at the 4-H Centre, Battle Lake. Seventy-three senior 4-H members were trained in canoeing, water safety and outdoorsmanship. Throughout July and August 4-H'ers attended 14 regional camps.

Forty-five delegates attended the western provinces 4-H seminar at Silver Creek Ranch.

The fourth annual provincial 4-H media news seminar was conducted in December with 70 4-H members attending.

The eight regional 4-H specialists were very active in serving the 4-H clientele within the province. Working with volunteer leaders was very challenging in a time of economic restraint; however more community-related projects were encouraged.

The main emphasis for district and regional 4-H councils was in the promotion of activities such as the annual highway clean-up, project clinics, workshops, camping, exchange trips, recreation activities, mall displays, exhibits at fairs and the farm safety program. All these programs increased in numbers this past year.

REGIONAL ACTIVITIES

Region	Workshops # held	Workshops participants	Exchanges # held	Exchanges participants	4-H Delegates at Provincial Programs	4-H Delegates at Regional Camps	Highway Cleanup Clubs involved	Highway Cleanup Km cleaned
Lethbridge	25	1718	4	85	239	190	82	1256
Calgary	16	480	0	0	225	120	29	408
Red Deer	17	670	3	80	290	135	56	786
Stettler	25	800	5	200	310	300	80	1232
Vermilion	18	734	6	158	251	187	57	918
Barrhead	16	724	12	180	275	228	63	978
Peace	27	693	3	72	188	145	45	600
TOTAL	144	5819	33	775	1778	1305	412	6178

4-H BRANCH CLIENT CONTACTS

A. **Individual Contacts**

Telephone	20,231
Letters	7,904
Home Visits	392
Office Visits	2,743
Mailouts	433
Copies Circulated	9,528

B. **Media**

Radio Broadcasts	740
Newspaper (Releases and Columns)	1,390
Television Broadcasts	86

C. **Group Activity Participants**

Project Related	22,892
Leader Development	2,131
Travel and Exchange	775
4-H Promotion	22,211
Camping	2,451
Communications	5,296
Council Meetings	3,903
Other.	5,883

Alberta 4-H General Statistics

Actual membership by place of residence.

	Boys	Girls	Total
Rural Farm	3,392	3,706	7,098
Rural Non-Farm	251	619	870
Urban	151	508	659
TOTAL	3,794	4,933	8,627

Total number of clubs: 556
Total number of adult volunteer leaders: 2,300
Average age of 4-H members: 13.16
Average tenure of 4-H members: 2.85

SUMMARY OF ALBERTA 4-H PROJECT ENROLMENT

(based on 1981-82 4-H Club Year)

PROJECT	MEMBERS No. of Boys	No. of Girls	Total
Apiculture	3	2	5
Automotive	39	4	43
Beef	2,681	1,978	4,659
Canine	34	64	98
Clothing	7	943	950
Computer	9	4	13
Crafts	42	316	358
Dairy	212	157	369
Field Crops	18	1	19
Foods	58	322	380
Goats	12	10	22
Horticulture	5	20	25
Interior Design	0	19	19
Junior Leadership	70	135	205
Leathercraft	73	83	156
Light Horse	565	1,282	1,847
Mechanics	31	2	33
Outdoorsman	99	56	155
Pheasant	76	46	122
Photography	34	32	66
Rabbit	6	8	14
Self-Determined	37	78	115
Sheep	64	70	134
Small Engines	246	6	252
Snowmobile	5	3	8
Sugar Beets	9	9	18
Swine	15	8	23
Tractor	18	0	18
Vet. Science	20	20	40
Weeds	1	0	1
Woodworking	97	11	108
TOTAL	5,689	4,591	10,280

ENGINEERING AND RURAL SERVICES DIVISION

This division responded to demands and changing needs of the farm population.

The farm safety program personnel participated in provincial, national and international farm safety programs. Provincial activities included 101 farm safety workshops and seminars, displays at 18 agricultural fairs, revision of the safety guide for farming and production of *A Child's Guide to Farm Safety*, which was distributed to 45,000 rural students in grades one to four. To guide teachers in the use of this safety workbook, 600 teachers' kits were sent to schools. The program also sent 1,200 poster calendars to the schools. Once again the farm safety program co-operated with the Farm Equipment Dealers' Association of Alberta and B.C. in producing the *Farmers' Safety Almanac*. Ten thousand copies were printed for the 1983 calendar year. The farm accident monitoring system continued to provide useful data regarding injuries to Alberta farmers, their families and employees.

Agriculture manpower programs continued to be very actively used. One thousand ninety students were assisted with temporary employment under the priority employment programs. Liaison and co-operation with the Canada Employment and Immigration Commission continued to assist in the delivery and evaluation of these activities.

The water well recovery program provided grants of $90,793.59 to 26 farmer applicants.

Engineering and Home Design Sector

Staff of this sector provided agricultural engineering and home design service not readily available from non-government sources to Alberta residents.

Engineering Field Services Branch

The agricultural engineering team in each region extended technology and provided information and services to producers and agri-business. Structures, environment and waste management were of concern to many clients. Applied research and demonstration projects were also initiated and carried out relative to these topics. Seminars were conducted on timely items such as grain aeration and drying, domestic water and sewage treatment, ventilation and soil and water management. In conjunction with the engineering specialists, publication production became a major endeavor.

The skill training and emergency dugout pumping programs continued to serve a large number of farmers in all regions with over 900 enrolled in the former and 800 services by the latter.

The Farm Implement Act administration licensed dealers and distributors of farm equipment and dealt with farmers' complaints relating to the performance of this equipment. These complaints related to new implement warranty, inadequate repairs, service and repair parts availability. Most problems resulted from a breakdown in communications between the farmer and dealer, and inspectors worked diligently to restore communications and resolve the complaint. Receiverships also presented the administration with some unique situations. An appeal heard by the Farm Implement Board eventually resulted in a bond call because of an un-co-operative distributor. The board also prepared regulations to accompany the new Farm Implement Act.

Engineering Resources Branch

An energy engineer was added to the staff to better serve the agricultural community. Effort was directed to analyzing the economics of energy activities. Several short courses and seminars on the topic were presented.

The structures specialist concentrated on publications, individual design projects and support services. Despite an apparent slowdown from previous high levels of construction activity, demand for plans through the Canada farm plan building service remained at last year's level, with 4,000 plans distributed. Most interest was in the swine, beef and grain structure areas.

A comprehensive swine manure manual was developed along with factsheets on dairy manure disposal and earthen manure storage. The minimum distance siting technique for livestock operations was widely used in the Certificate of Compliance program (C of C). Computerization of the C of C program was completed, providing an information retrieval system to all regional offices. Other new computerized services added during the year included programs for pole frame costs analysis and a program to size lagoon storage. A total of 1,624 engineering projects were conducted utilizing the computerized models.

Soil and water activities included research projects on slough water quality, cartridge-type iron filters and erosion monitoring. Emphasis was placed on extension activities such as farm calls, public seminars and demonstration projects.

Emphasis in farm machinery was geared to a reduction of field operations. Seminars were presented and materials prepared on minimum and zero tillage, combining field operations, efficient tractor use and air seeder-planters. The zero tillage project was completed.

Activities in seed and feed processing included the development of construction drawings for four levels of seed plants on the modular design. Emphasis was placed on the development of on-farm grain storage and handling facilties.

A co-operative project related to apiculture buildings and equipment and their utilization was completed and a publication on farm workshops was prepared.

Home and Community Design Branch

Assistance for the preliminary design service increased 100 requests over last year to 455. The increased demand for plans was in part spurred by a federal incentive grant for new homes. Low energy homes and retrofitting became more important to farm families having less expendable income – they reduced energy costs and carried out home improvements themselves.

The publication *Low Energy Home Designs* met a great need, with requests for it coming from all over North America. The publication exceeded its objective of providing design and technologies to families; it was used as a text reference in schools and universities.

Thirty-three seminars and workshops were presented to groups throughout Alberta on energy matters related to farm housing. The housing specialists presented 42 workshops on do-it-yourself home design and improvements. All workshops and seminars were well attended and received.

New printed material included *Energy Conservation in Mobile Homes, Drapery Fabrics, Upholstery Fabrics,* a set of working drawings for a low energy home, and four detailed sheets showing options for retrofitting, new house construction, vapor barriers and heating systems.

In the community design area, 17 agricultural societies requested preliminary design service. The trend to adding on and renovating facilities was evident. Two handouts were developed – *Guidelines to Selecting Contractors and Negotiating Contractors* and *Material Specification Guidelines.*

Rural Services Sector

The primary objective of this sector was to work closely with local government and local communities both in program development and delivery.

Community Services Branch

The community services branch continued to provide administrative and program support to 265 agricultural societies in the province. The program support emphasized volunteer management and sound operation of agricultural society activities.

Eleven new agricultural societies were formed in 1982-83. The branch held 25 information meetings with various communities to provide preliminary information about the agricultural societies program. Forty-six consultations were held to help new and existing agricultural societies develop organizational and program delivery skills and study specific areas of program and facility development.

Nine regional creative fair workshops were held to assist in the development of fair committees and improve the quality of the local fairs and shows. Twenty regional workshops were attended by 390 participants

from 104 agricultural societies and 16 other community organizations.

The branch revised and edited several publications and audio-visual materials used as resource material in workshops. Two new workshops – public relations, and bookkeeping and financial planning for agricultural societies – were developed and tested. The agricultural society newsletter was published six times and distributed to 430 people.

The community services branch continued to support and co-operate with the Alberta Association of Agricultural Societies in its capacity as provincial umbrella organization for agricultural societies.

Financial support for programs such as exhibitions, fairs and displays was provided in addition to assistance in the construction and renovation of multi-use facilities to accommodate the programs and improve the community life of rural Alberta. One hundred eighty-two operating grants of $759,930, 142 fair grants of $300,600 and 50 capital grants of $1,964,420 were provided.

Agricultural Services Branch

The agricultural services branch provided administrative and operative support to agricultural service boards and agricultural development committees. Sixty-five agricultural service boards received $3,914,140 in grants to assist them in the execution of essential programs in soil conservation, weed control, field crops, pest control, horticulture and tree planting, livestock improvement projects, training and extension.

Emphasis was placed on providing training to agricultural service boards, agricultural fieldmen, district agriculturists and district home economists in order to increase board effectiveness in program planning, budgeting and execution. Twenty-seven workshops were held with boards across the province, an extensive evaluation of agricultural service boards in 14 improvement districts was undertaken in co-operation with municipal affairs and the training needs of the agricultural fieldmen were evaluated in relation to the availability of training courses. Four regional workshops were held with agricultural service board chairmen to discuss budget, concerns, agricultural service board organization and clarification of roles.

To further assist boards in carrying out their responsibilities, a quarterly provincial agricultural service board newsletter and a training opportunities calendar were developed.

Provincial input into the organization, planning and resourcing of regional and provincial agricultural service board conferences and fieldmen training sessions improved communications and resulted in a greater awareness of the role of the boards.

Meetings were held with agriculture divisions and branches associated with agricultural service boards to establish policy, common goals and objectives.

Grants to agricultural service boards encouraged and facilitated the execution of local programs geared toward maintaining or improving agriculture production levels.

Sixty agricultural development committees continued to provide understanding of local conditions and needs in considering appeals on loan applications and the disposition of public land.

Committees contributed to the development of policies in Alberta by identifying program needs in rural communities, evaluating the impact of programs and the effectiveness of delivery systems.

MARKETING

Alberta
AGRICULTURE

MARKETING

MARKETING SERVICES DIVISION

Agri-Food Development Branch

During the year the agri-food development branch was created within the marketing services division by merging the food marketing branch and commodity development branch.

The role of the agri-food development branch was to co-ordinate the supply response capability of the agricultural production and processing industry – in other words, the ability of industry to respond to identified market development opportunities. This supported the marketing role and programs of the market development division.

During the past fiscal year the branch granted $2.1 million to industry in order that companies might more readily be able to profitably market their products.

The branch had four sections: processed food development, crop and horticultural development, livestock development, and meat and dairy development.

The processed food development section provided manpower and financial support to the Alberta food processing industry with emphasis on maintaining consumer awareness of Alberta produced products, assisting small companies with market planning and expanding participation in the growing foodservice sector. Programs during the year included the production of the booklet *Alberta Food Brands*, the joint production with the Alberta Beekeepers' Association of *Honey of a Cookbook* which proved a great success, and the presentation of 12 television shows and 16 radio shows featuring Alberta products. Each show averaged 200 responses from consumers seeking further product information.

The major thrust of support for the industry was directed through the Alberta Food Processors' Association which represented over 80 of the province's food processors. In addition to financial assistance the section staff assisted the association with program planning. The association's "Better Buy Alberta" campaign was assisted by organization of seven mall displays with an average of 21 companies in attendance and attracting crowds of 20,000 to 40,000. Over 40 companies were assisted to attend foodservice shows in Edmonton, Vancouver and Toronto with an aggregate attendance of 70,000. A study of Alberta companies and their products was initiated to provide background for market development planning.

The livestock development section worked in close liaison with 22 cattle and swine breed associations, 12 horse associations and Alberta companies representing the semen and embryo industries. As well as providing financial assistance for development and promotion of the livestock industry, this section was heavily involved with livestock shows, fairs and sales in Alberta, Canada and the U.S. The section assisted with missions to Alberta from most major importing countries of the world.

High priority was given to the development of Alberta's frozen embryo industry which is genetically and technologically advanced by world standards. The section continued to liaise with federal and provincial organizations, industry and the Alberta Cattle Commission on issues including provincial show development, livestock transportation methods, electronic marketing, and policy for industry involvement in livestock and trade shows.

The crop and horticulture development section assisted 20 producer groups and associations representing the grains, oilseeds, horticultural, special crops and nursery industries. Much of the priority assigned during the year was directed at structural problems facing the canola, alfalfa, fresh vegetable and greenhouse industries. Some successes were achieved as producer groups moved toward new or improved "check-off" systems. Marketing assistance was provided to the hard-pressed pulse industry and emphasis was placed on opportunities in the animal feed and bagged grain sectors. The section continued to monitor the impact of the Crow initiative on industry opportunity.

The crop and horticulture development section also maintained responsibility for administering the farmers' market program, which included over 100 markets. The popularity of the program reflected increased demand for alternative direct selling opportunities for farm produce in difficult economic times.

Assistance for the meat and dairy industries was administered by the meat and dairy development

section by way of developmental and promotional assistance for the Alberta Dairymen's Association, Alberta Pork Producers' Marketing Board and the Alberta Sheep and Wool Commission. The section provided input to the promotional program of the Alberta Cattle Commission and liaised with industry to develop display material for overseas food promotions. During 1982-83 much emphasis was placed on monitoring structural difficulties in the slaughter and packing industries. The ground work was completed for a red meat study of market opportunities in Asia, North America and Europe for the market development division.

Agricultural Processing Development Branch

The branch continued its close working relationship with the agricultural processing industry in meeting the objective of expanding the capabilities of this sector within the province.

Branch programs included project assessment and feasibility studies, research and technical assistance, financial incentives and interaction with other government bodies.

Assistance in conducting feasibility studies was provided to numerous firms and associations. Major projects included evaluation of corn milling opportunities in southern Alberta, prospects for improved beef by-product return through extended hide processing and a study of the sweetener market future in conjunction with the Alberta Sugar Beet Growers' Association.

Significant technical and financial contributions were made to the development of specialty biscuits, pasta products, portion packaged products, processed cheese, and extruded crumb and crouton products by Alberta processors. All were new Alberta ventures resulting from increasing market awareness and the need of local processors to establish unique product categories with an opportunity for improved net return. Branch staff assisted with evaluation of opportunities in processed vegetables, canola oil by-products recovery and sunflower oil processing.

Long-term efforts to gain an Alberta location for a proposed edible vegetable oil refinery were rewarded by the announcement of a refined canola oil plant at Wainwright. Concurrent updating by Alberta's other refiner made the objectives of further processed product manufacture a greater reality. Completion of a new poultry processing plant resulted in this sector's being able to match technological and production efficiencies of any other region in Canada.

Energy costs and efficiency of utilization continued as important issues for food and feed processors. Technical assistance was provided to alfalfa, peat, oilseed, greenhouse and dairy operations. Contributions were also made to national committees on energy, particularly with regard to research in refrigeration and drying aspects of processing.

Contributions were made to a series of profiles for red meats, canola and specialty food areas. Position papers on key industry sectors were also provided to management, other government groups and industry. Consultants' studies were reviewed in respect to opportunities for specialty meats, bakery products, robotics and government programs. A number of firms received technical and financial assistance in developing new or improved packages, in many cases for the export market. Packaging function, design and presentation are important in creating competitive retail and foodservice products. Local expertise in packaging these marketing service sectors received support.

Research and processing advice was provided to many Alberta firms, individuals seeking technical knowledge about foods and various government and institutional bodies. Some enquiries resulted in testing and implementation of new processes by industry – for example, modified atmosphere packaging to extend shelf life was tested and used by manufacturers of sandwiches, bakery goods, specialty meats and fresh pork. The research group continued in-plant testing for poultry and fish applications.

Technical advice and/or financial support resulted in projects related to whey utilization, protein and starch separation from pulse crops, blast chilling of pork and the development of a rapid method for licorice manufacture.

Construction continued on the Food Processing Developing Centre at Leduc, expected to be open early in 1984. Considerable time was taken to develop specifications and purchase documents for pilot process equipment.

During fiscal 1982-83 the branch administered the canola crushers' margin assistance program, and the natural gas assistance program for the alfalfa industry. In addition, grants were made on a cost-sharing basis to 20 firms to support their assessement of new technology, development of new products and processes and creating of new packaging systems.

Food Laboratory Services Branch

The main objective of the food laboratory services branch was to monitor the quality, safety and nutritional value of Alberta's food and agricultural production at the producer, processor and consumer levels. The branch, through its laboratories in Edmonton and Airdrie, provided analytical (chemical, microbiological, compositional and organoleptical) and consulting services to all sectors of the Alberta food industry, food exporters and various government agencies concerned with food production, processing, inspection, transportation, retail trade and consumers.

The laboratories continued monitoring foods, food ingredients and other agricultural commodities for the presence of pesticide, herbicide, aflatoxin and sulfonamide residues. A total of 1,318 samples were analyzed for the presence of these chemicals during the 1982-83 fiscal year. With the introduction of a more sensitive analytical procedure, 30,861 random milk samples, and over 100 samples of meat and honey were checked for the presence of antibiotic residues. It is significant that only 0.5 per cent of all milk samples examined contained some antibiotics.

From April 1, 1982, to March 31, 1983, the food laboratory services branch received 587,039 samples of various foods, food ingredients and other agricultural commodities, requiring 1,289,835 tests.

The following table indicates the number and type of samples received at the laboratories and the number of analyses performed during the 1982-83 fiscal year. The number of samples analyzed and the analyses performed during the previous 12-month period are indicated in brackets.

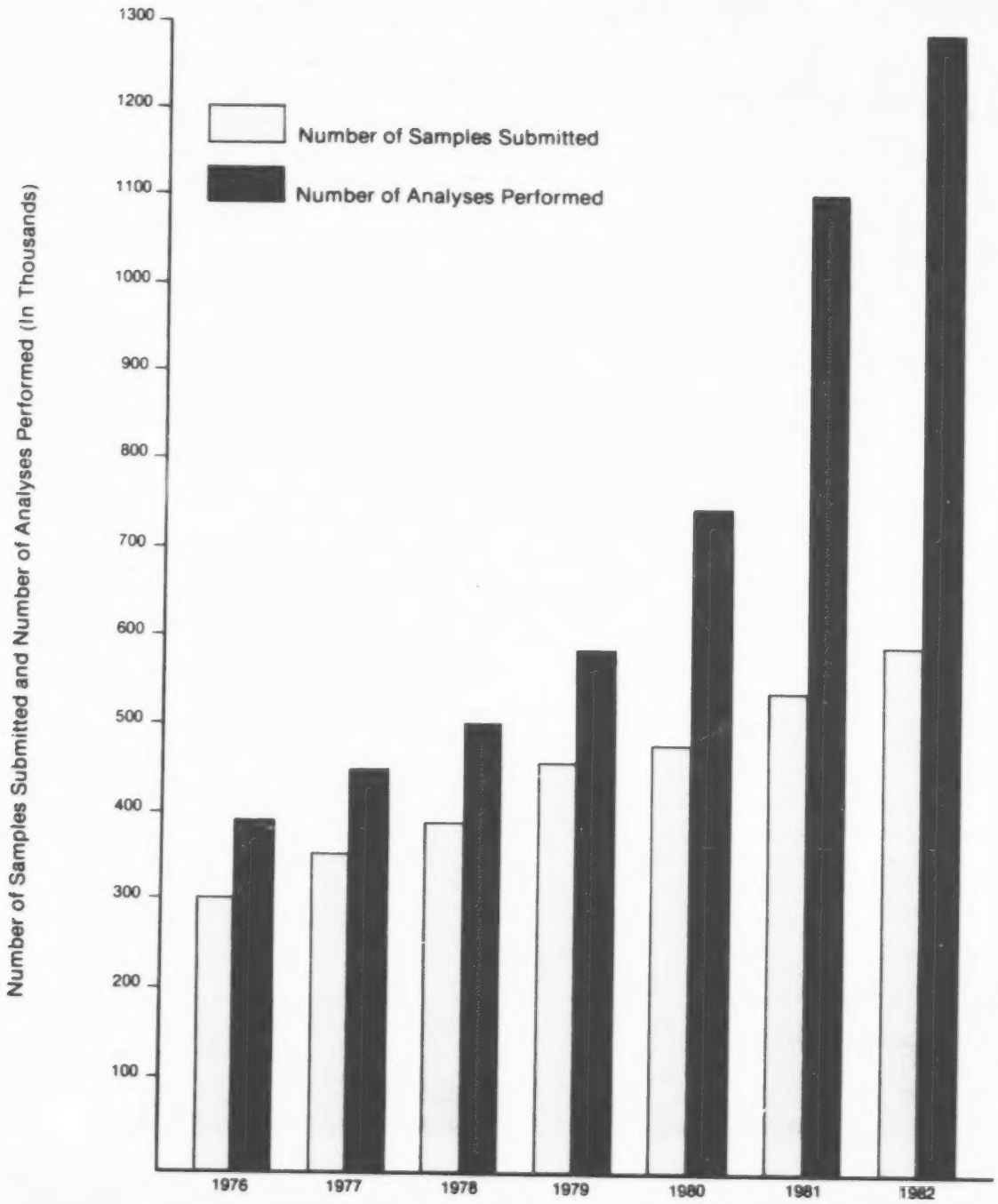
The graph illustrates the number of samples submitted and number of analyses performed during the past seven years.

Samples Received and Analyses Performed
By The Food Laboratories in
Edmonton and Airdrie

April 1, 1982 to March 31, 1983
(figures in brackets are for the previous 12-month period)

	No. of Samples Analyzed		No. of Analyses Performed	
Milk and Cream	36,027	(37,692)	132,048	(113,741)
Butter	210	(268)	697	(1,026)
Cheese and Cultured Products	2,226	(2,590)	7,578	(9,914)
Ice Cream and Frozen Desserts	663	(783)	1,869	(1,949)
Dry and Evaporated Milk	25	(64)	98	(290)
Processing Plant Survey	413	(454)	1,421	(1,578)
Honey	121	(440)	430	(1,056)
Washing and Sanitizing Agents	44	(9)	117	(9)
Water	227	(157)	635	(321)
Eggs and Egg Products	828	(413)	2,162	(945)
Meat and Meat Products	1,799	(1,091)	8,284	(5,479)
Vegetables	507	(381)	2,262	(1,360)
Fish and Wildlife	306	(158)	820	(516)
Cereal Products and Forage	482	(265)	1,481	(527)
Human Specimens	10	(33)	13	(62)
Soil	281	(257)	322	(293)
Research and Collaborative Studies	846	(235)	879	(249)
Miscellaneous Foods	1,024	(1,243)	3,750	(4,700)
Central Milk Testing	541,000	(479,578)	1,124,969	(936,474)
TOTALS	587,039	(526,111)	1,289,835	(1,100,489)

NUMBER OF SAMPLES SUBMITTED AND NUMBER OF ANALYSES PERFORMED BY THE FOOD LABORATORY SERVICES BRANCH DURING THE PAST SEVEN YEARS



Business Analysis Branch

The role of this branch continued to be to support the development of a viable agri-industry sector in Alberta by:

- evaluating and auditing proposals received under specific departmental assistance programs, and
- providing management support by encouraging sound business practices, and by providing financial and business management advice as requested.

As in previous years, the main activity of the branch was the completion of evaluations and inspections on projects submitted under the Canada-Alberta Subsidiary Agreement on Nutritive Processing Assistance (NPA) and the agricultural societies capital grant and loan program.

The NPA program, a $28 million federal provincial grant program, provided development assistance for new facilities and the modernization or expansion of existing operations in the agricultural processing sector of rural Alberta. During 1982-83, the business analysis branch completed evaluations under this program resulting in 34 offers totalling $5,356,408 of grant assistance on $28,702,126 of capital projects. In addition, branch staff completed inspections on 106 projects resulting in initial and final grant disbursements totalling $4,232,351. Activity under this program continued to be brisk.

Under the agricultural societies capital grant and loan program, branch staff reviewed 19 community capital projects proposed by approved agricultural societies. Total grants recommended amounted to $558,138, while loan guarantees were recommended at $10,344,315. Audit reviews to verify that previous capital grants were spent as intended were also given priority.

Management support activities to industry and specific firms continued to become a more prominent branch role.

Given the economic situation faced by Alberta processors in 1982-83, branch members were faced with a substantial increase in requests for assistance from small processors in varying degrees of financial difficulty. Financial management support was provided to individual firms with statement and operation reviews as well as with delineating and analyzing alternatives for action. In a number of situations, this assistance was provided in conjunction with other branches in the division, allowing for support in financial management and operations.

Other efforts during the year included:

- input into the implementation of the canola crushers' margin assistance program
- continued liaison with the Alberta Food Processors' Association from a financial management perspective
- participation by a branch member on the board of directors of one processor.

MARKET DEVELOPMENT DIVISION

The market development division continued to assist agricultural producers, processors and marketers in their marketing efforts for agricultural commodities, processed food, feed products and technical services.

In 1982 the division, formerly called international marketing, was restructured to emphasize expansion of local and national markets for Alberta products in addition to international markets.

1982-83 was a difficult year in most marketplaces as a result of the recession and shrinking market size. The market development division, however, was quite successful in assisting Alberta industries to expand their share of sales in most markets. Market development staff pursued opportunities in import replacement and for broadening the representation of Alberta products on retailers' shelves in the province.

Alberta had about nine per cent of Canada's population and produced over 20 per cent of Canada's food. That meant markets outside Alberta were critical to the continued health and growth of the agriculture and food industries in Alberta. In 1982-83 the market development division had a positive influence on sales of approximately $300 million in international markets alone.

The division continued to emphasize the products that Alberta is best at producing – those based on the meat and livestock industries, the grain and canola industries and products derived from each of them.

Alberta remained a major supplier of export commodities including wheat and wheat flour, barley, canola, meats, whiskey, beer and water, cattle and swine, animal feeds, hides and skins. Alberta also exported large quantities of canola oil and meal, peat moss, semen, embryos, forage seeds, honey and malt. Export markets were developed and expanded for cookies, crumpets, pastas, frozen bread dough and processed meats.

The division emphasized the following markets and commodities in order of priority:

Markets:
Alberta, British Columbia and Quebec for beef
Pacific Northwest and Western United States
The balance of the Canadian market
Japan, Korea
U.K., Germany
Mexico, Venezuela
U.S.S.R., Hungary, C.S.S.R.
People's Republic of China

Commodities:
Livestock and meat sector – beef, pork, lamb and horsemeat
Canola – oil, meal and seed
Grains
Special crops – forage seeds, beans, pulses, alfalfa and its products, seed and table potatoes
Processed products from grain and field crops – flour, pasta, processed vegetables and food products such as honey
Other products – flax, mustard, malt, horsemeat, dairy products, peat moss, poultry products, etc.

The market development division offered financial assistance, market development programs and advice to Alberta companies on market opportunities and methods of marketing.

The division had two branches: one serving the Americas, and one serving overseas. A third area of emphasis was trade shows, through which the division encouraged Alberta companies to explore market opportunities; and the sale of technical information and skills of Alberta consultants.

United States

In the last five years Alberta really began to show results in terms of agricultural trade with the United States, the province's largest and most important market. Alberta exports increased from $135 million in 1981 to $156 million in 1982, a 15 per cent increase, and a very significant and steady increase from $77 million in 1977.

Livestock, red meats and whiskey were Alberta's top three exports to the U.S., all showing sizable increases. These results were particularly significant in that the livestock red meat sector was a high priority of the market development division. The United States provided a much-needed market as an alternative to the Montreal market. The largest portion of these exports went to adjacent markets in the Pacific Northwest, west coast, mid-west and Hawaii.

The majority of Alberta beef shipped to the U.S. in 1982 was manufacturing quality beef – carcass and boneless cow, lean and regular beef trimmings, mainly hamburger meat.

Of significance in 1982-83 were the repeat shipments of lean, high quality A.A. beef to Safeway stores in Hawaii and Spokane for Canada Week features. These shipments were orchestrated by Canada Safeway Export Group in co-operation with the market development division. These sales amounted to well over $1 million.

The U.S. remained the major market for Alberta pork, showing sizable increases this past year. The pork-deficient west coast markets accounted for most of the volume as Alberta was able to compete with U.S. mid-west producers. Alberta pork was featured in Safeway stores in Hawaii, Spokane, Denver and Seattle with sales in excess of $2 million.

A study was initiated by market development in 1982 to cover the feasibility of producing and marketing heavier hogs for the U.S. market.

The study identified important opportunities in the Pacific Northwest and west coast in the areas of specialty pork processors, retail supermarkets and the foodservice trade.

Alberta's processed meats industry made significant inroads into the U.S. market in 1982-83 with five Alberta processors shipping products to Spokane, Portland, Seattle, Denver and Hawaii under the Canadian Pride label. This program expanded the Alberta industry's markets for value-added meat products.

In 1982-83, market development participated in five major shows where the traffic of buyers was heaviest with an Alberta booth at Madison, Billings, Portland, Denver and Houston. This program made U.S. buyers aware of the superior genetic make-up of Alberta's beef

cattle, and sales have increased steadily since the inception of this program.

Over the past five years the number of Alberta food processors who export products has increased many times over. Besides processed meats, grocery product shipments to the U.S. in 1982-83 included liquor, beer, honey, pasta, frozen juices, crumpets, bottled water, crispbread, binders, potatoes, croutons, cookies, potato granules, frozen tart shells, whitefish caviar, frozen freshwater fish, peat moss and potting soil.

Market development undertook feeding trials using canola meal in rations for trout, dairy cows, dairy calves and poultry. As a result, canola meal became accepted in feed rations in the Pacific Northwest. Over 1,500 tonnes of meal crossed the border monthly. Efforts continued to secure Generally Regarded as Safe (GRAS) status for canola oil.

Alberta was in a "sold out" position from the 1,800 acres of seed potatoes produced in 1982. Spring plantings in 1983 were estimated at 2,000 acres. This increase was in response to the growth in the Pacific Northwest U.S. commercial potato business, a market identified by the market development division and vigorously pursued by the Alberta industry.

Alberta continued to liaise with the Western Association of State Departments of Agriculture. At the producer level, the department continued to work with the Alberta Cattle Commission and U.S. producer organizations to further cement co-operative relations.

In 1982, a group of prominent cattlemen from Oregon visited Alberta.

The Canadian Market

Late in 1982, Alberta Agriculture recognized a need for emphasis on the domestic market, particularly Alberta and B.C.

Market development's goal in this area was to encourage and assist producers and processors to increase their share of the home market. Priorities included processed foods, processed meats, poultry, speciality cheeses, canola meal, pulses, storage vegetables, greenhouse crops, flowers and nursery stock.

B.C. complemented, rather than competed with Alberta in many areas. Market development's strategy was to meet with chain store buyers, agents, brokers and wholesalers and provide market information to Alberta producers and processors. Participation in the B.C. Food Show assisted several Alberta companies in entering the foodservice business in B.C.

The Montreal beef market continued to be Alberta's primary outlet in Eastern Canada. Efforts were made to maintain and expand this market, emphasizing boxed and portion-cut beef rather than carcass beef.

Pacific Rim and Southeast Asia

Several missions to this territory were conducted during 1982-83 involving both exporters and departmental staff. During these missions export opportunities were identified and pursued and information was gathered for future marketing efforts. A broad range of commodity information was provided during these missions with emphasis on livestock, meat, canola, dehy alfalfa, forage seed and food products. Consulting services were also promoted in selected lesser developed countries.

Korea has developed into a significant market for Alberta's beef cattle exporters, and imported 6,385 head of beef cattle from Canada during 1982, of which about 90 per cent were from Alberta. Alberta's swine breeding stock was promoted in the Philippines, Singapore, Thailand, Japan and Korea, resulting in several sales. Market development hosted several livestock missions including swine and cattle buyers.

A project was undertaken in 1982 to demonstrate Alberta's ability to provide Japan with the well marbled high quality beef it demands. This took the form of a special feeding program for selected cattle, and resulted in a very acceptable product for the Japanese. These results formed a basis for further promotional efforts in Japan and other Pacific Rim nations. Pork continued to be a major export item from Alberta to this region and accordingly was the focus for several missions.

Headway was made in Korea on feeding trials using canola meal. Preliminary results indicated that considerably higher levels of canola meal in animal rations will be recommended. Japan was a focus for activities for canola during the year, including oil and meal promotions. Market development hosted a number of Japanese buyers and processors during the year.

China, and in particular Alberta's sister province, Heilongjiang, was the recipient of several missions during the year which focused on hide sales, the development of livestock and artificial insemination export opportunities, forage seed sales and consulting

services opportunities. Alberta Agriculture also hosted a number of visiting delegates from Heilongjiang, particularly to study livestock and pasture management.

Latin America and the Caribbean

As a result of the large geographical area of the territory, the wide variation in economic development of the countries in the region and Alberta's own agricultural capabilities, a strategic plan was drawn up according to countries and commodities.

Prospects for commodities were ranked this way: canola meal and oil, livestock, specialty crops, consulting services and processed foods.

Countries offering market potential for Alberta were: Mexico, Venezuela, Colombia, Chile, Ecuador, Peru, Argentina, Barbados, Trinidad and Tobago, Jamaica, the rest of South America, Central America and the rest of the Caribbean.

During the fiscal year a seminar was held in Mexico City to brief researchers, feedmillers and government officials on canola meal, oil and seed. A feed mission from Mexico visited Alberta canola crushers, feedmillers and users of oil and meal regarding the use of canola meal. Canola was supplied for two university trials for feeding pork, poultry broilers and layers in Mexico. Discussions were held with two large hog operations in Mexico on setting up commercial trials utilizing canola meal. Attempts were made with Venezuelan, Colombian and Chilean government officials to have them accept canola oil and meal.

In the livestock sector, market development supported participation in the Palermo Show in Argentina, the PRADO show in Montevideo, the Porto Alegre Show in Brazil and the Guadalajara Livestock Show in Mexico. A livestock, semen and frozen embryo mission visited Chile, Argentina and Brazil, resulting in sales of semen, and the identification of opportunities for a supply of frozen embryos and live beef and dairy cattle for breeding. Bulls were sold after buyers attended Agribition. Buyers visiting the Alberta Pork Congress bought swine breeding stock. A group of Mexican veterinarians toured Alberta as did a swine mission representing the Mexican government. Sales of Alberta swine to Mexico took place.

Venezuelans purchased semen from Alberta, and discussed a joint venture livestock operation in Venezuela. Market development identified a joint venture project in Peru for large scale dryland farming.

Assistance was provided to agricultural consulting companies to pursue projects in the Caribbean, Central America and South America. An incoming consulting mission from Jamaica, Barbados and Trinidad resulted in business and the Alberta company setting up an office in Barbados.

A hide and edible offals mission identified good potential opportunities. A detailed marketing study on processed foods and agricultural products was completed on the Mexican market which identified clear opportunities for hides, edible offals, canola seed, oil and meal.

A successful lentil and bean mission to Venezuela and Colombia resulted in numerous enquiries and sales. A malting barley mission to Colombia, Ecuador and Peru identified a large market which the companies are pursuing. Forage seed sales continued to Argentina.

Two Alberta companies were assisted in obtaining a better understanding of the world food program and Canada's role in it. Conversely the co-ordinators in Ottawa were made aware of Alberta's capabilities with the aim of improving the chances for Alberta companies to supply.

Europe, Africa and the Middle East

This market, including eastern and western Europe, Scandinavia, continental Africa, and the Middle East, consisted of 86 countries.

Within the total market area, major market priorities were identified as being the United Kingdom, the Federal Republic of Germany, the Soviet Union, Czechoslovakia and Hungary. Secondary priorities were identified as being in Portugal, Greece, Algeria, Libya, Egypt and the Sudan.

Within this market, product priorities were placed on high quality boneless fresh beef, cereal products, mustard and mustard powder, pulses, canola oil and meal, malting barley, seeds for planting – particularly forage seeds, flaxseed, leisure horses, consulting services, high quality breeding livestock, frozen semen and embryos.

England became a significant market for Alberta's processed high quality fresh boneless beef. Market introduction and support were achieved through customer product seminars and in-store promotions. Beef was also featured along with Alberta honey, beer,

water, canola oil, dehydrated mushrooms and pulses at the International Food and Beverage Exposition in London.

A test shipment of beef was also made to Switzerland where it was extremely well received. Germany was another priority market for Alberta beef. The market development division conducted a study to examine the opportunities for marketing Alberta beef and pork in Europe

Market development provided an agricultural component to ministerial missions to Portugal, Egypt and the Sudan. Both missions featured market development activities for livestock, food and cereal products. Follow-up response was encouraging, with Alberta companies being requested to bid in the market.

A mission to Greece identified the potential for sales of Alberta products to ship's chandlers who sell to holiday cruise lines.

Market development, along with Alberta's horse breeders, participated in Equitana at Essen, Germany. All Alberta entries sold during the show and follow-up shipments have been made.

Market development continued its program of incoming buyer support with missions being received from England, France, Ireland, Sweden, Czechoslovakia, Hungary, Egypt and the Soviet Union.

Livestock breeders were assisted in receiving incoming buyers to Agribition and the Calgary Bull Sale and to meet buyers through attendance at the Royal and Royal Highlands shows in England and Scotland.

Special emphasis was placed on penetrating the market for canola meal and oil in the Soviet Union. A well attended and well-received seminar was presented in Leningrad, followed by meetings in Moscow with agriculture, trade and procurement personnel. A positive response was received from the Soviets and further proposals were prepared.

In support of Alberta's processing base and to encourage product development suited to the export market, a project on prosciutto ham production and extruded products processing was identified and followed up with Alberta interests.

With assistance from market development, an Alberta consulting and management firm vigorously pursued a contract in excess of $100 million to construct an irrigated farming operation in Libya.

CANADA-ALBERTA SUBSIDIARY AGREEMENT ON NUTRITIVE PROCESSING ASSISTANCE

This was a three-year agreement jointly funded by Alberta and Ottawa at $28 million. The agreement is due to terminate March 31, 1984.

The agreement provided grants to selected projects and was designed to enhance four areas, namely:

- to encourage the establishment of income and employment opportunities in the smaller centres and rural areas of Alberta
- to process products of nutritional value to humans and animals
- to process products of plant or animal origin
- to encourage full-time commercial research focusing on nutritive products or processing activities.

Grants under this program could be up to 35 per cent of the eligible capital for new project, or up to 20 per cent of eligible capital for modernization or expansion. A research project could receive support up to 20 per cent or a maximum of $500,000.

A major public information program was launched for the Nutritive Processing Agreement during the period under review. This was in addition to the regular project evaluations and audits. The projects offered grant support were:

Commodity	No. of Projects Offered Support	$ Offered	Estimated Capital On Which Offer Made
Meat	6	$ 399,057	$ 1,794,451
Feeds	7	260,106	1,400,274
Bakeries	4	55,642	225,389
Dairy	3	1,206,469	4,317,425
Vegetables	3	166,504	919,800
Canola	5	2,991,564	18,681,090
Alfalfa	–	–	–
Research	–	–	–
Miscellaneous	6	277,066	1,363,697
– Bottling Flavored Water			
– Egg Grading			
– Seed Sprouts			
– Soft Drinks			
– Wheat Flour			
– Wool Grading			
	34	$ 5,356,408	$28,702,126

Under the program, initial payments of 80 per cent of grant offered were made after a project has been in commercial production for at least one month. Fifty-five initial payments amounting to $3,628,106 were made.

Final payments of the remaining 20 per cent of grant offered were made after a three-year control period. These payments amounted to $604,245 for 51 different projects.

RESEARCH AND RESOURCE DEVELOPMENT

Alberta
AGRICULTURE

RESEARCH AND RESOURCE DEVELOPMENT

RESEARCH

The research division was created in November 1982 through a reorganization of four existing positions within the research and administration sector.

The division's mandate flowed from the department's resolve to identify, support, conduct and extend the research necessary to solve the problems that limit the production, processing or marketing of Alberta's agricultural products. The division was responsible for assessing research needs and priorities, effectively administering research grant programs, developing and implementing criteria for evaluating research programs, maintaining a comprehensive inventory of current agricultural research projects and co-ordinating research activities across the department.

The research grant programs administered by the research division included Farming for the Future, the Alberta Agriculture research fund and the Alberta Agricultural Research Trust. In addition, the division provided administrative services for grants awarded under the Alberta crop research development program.

The Alberta Agriculture research fund was a departmental research budget intended to fund research projects dealing with immediate agricultural research problems for which no branch or divisional budgets were allocated.

Management of the fund was transferred to the research division in 1982 from the planning secretariat. Eleven projects were supported by the fund in 1982-83.

The division co-ordinated the collection and compilation of the 1982 inventory of agricultural research projects conducted in Alberta by the provincial government, universities and private industry. This inventory helped the division to provide current research information, set research priorities, and co-ordinate research activities undertaken by the province. Including research projects undertaken by federal research stations within the province, 605 agricultural research projects were reported to be in progress in Alberta in 1982.

Farming for the Future

Farming for the Future*, a five-year agricultural research program supported by the Alberta Heritage Savings Trust Fund, completed its fourth year of operation in 1982-83. Administered by the Agricultural Research Council of Alberta, Farming for the Future had three funding programs: the research program, the on-farm demonstration program and the graduate student research support program.

During the year, the research program supported 141 projects. Of these, 40 were new projects while 101 were continuing projects. Approximately $5.7 million was spent on these projects, bringing the total expenditure under the program over the period 1979 to 1983 to $15.2 million. By March 31, 1983, 30 research projects were completed.

FARMING FOR THE FUTURE
FUNDS ALLOCATED BY PROGRAM AREA, 1982-83
(UNAUDITED)

PROGRAM AREA	1982-83
Apiculture/Entomology	359,900
Cereals and Oilseeds	1,090,281
Forages	949,630
Land Resources and Engineering	627,610
Irrigation	270,000
Non-Ruminants	449,900
Processing, Transportation, Marketing and Socio-Economics	153,400
Ruminants	1,468,350
Special Crops	322,340
TOTAL	$5,691,411

* A more detailed and comprehensive annual progress report of Farming for the Future activities is provided to the Legislature each year through the Minister of Agriculture.

FARMING FOR THE FUTURE
FUNDS ALLOCATED BY RESEARCH AGENCY, 1982-83 (UNAUDITED)

AGENCY	1982-83
Alberta Agriculture	758,000
Alberta Research Council	16,000
Agriculture Canada	1,752,760
Fairview College	17,400
Private Industry	140,750
Queen's University	47,000
University of Alberta	2,065,351
University of Calgary	12,300
University of Guelph	20,000
University of Manitoba	68,300
University of Saskatchewan	162,000
University of Toronto	74,000
Veterinary Infectious Disease Organization	285,000
Western College of Veterinary Medicine	272,450
TOTAL	$5,691,411

To enhance the transfer of research information to farmers, five producer-oriented publications were issued during the year. These publications were distributed to Alberta producers through the *Country Guide* magazine and through the department's regional and district offices. Over 55,000 copies of each of these publications were distributed.

A Farming for the Future display was constructed in 1982 and featured at 14 locations across Alberta including farm fairs, exhibitions, conferences and seminars. The purpose of the display was to heighten producer awareness of the wide range of research activities supported by Farming for the Future and to facilitate the dissemination of research information.

Farming for the Future's on-farm demonstration program was established by the Agricultural Research Council of Alberta in January 1982. Its purpose was to promote and support the transfer of new and proven technology from researchers to producers. As of March 31, 1983, 61 projects were approved at a total cost of $192,286.

FARMING FOR THE FUTURE
ON-FARM DEMONSTRATION PROGRAM
REGIONAL DISTRIBUTION OF APPROVED PROJECTS
TO MARCH 31, 1983 (UNAUDITED)

Alberta Agriculture Region	Number of Projects	1982/83 Funding ($)
Southern Region Lethbridge (Region 1)	11	50,263
South Central Region Airdrie (Region 2)	16	20,381
North Central Region Red Deer (Region 3)	16	41,181
Northeast Region Vermilion (Region 4)	6	26,677
Northwest Region Barrhead (Region 5)	7	28,742
Peace River Region Fairview (Region 6)	5	25,042
TOTAL	61	$192,286

Farming for the Future's graduate student research support program was also created by the Agricultural Research Council of Alberta in January 1982. It was intended to encourage the training of additional scientific talent for agricultural research. The program provided financial support for agricultural research projects undertaken by graduate students in Alberta universities and the Western College of Veterinary Medicine at Saskatoon.

The first set of graduate student applications was reviewed in July 1982 and 18 projects were approved at a cost of $123,600.

FARMING FOR THE FUTURE
GRADUATE STUDENT RESEARCH SUPPORT PROGRAM
INSTITUTIONAL DISTRIBUTION OF APPROVED PROJECTS, 1982-83 (UNAUDITED)

Institution	Number of Projects	1982-83 Funding ($)
University of Alberta		
Faculty of Agriculture and Forestry	13	93,900
Faculty of Home Economics	2	4,900
Faculty of Science	1	5,000
Western College of Veterinary Medicine	2	19,800
TOTAL	18	123,600

LAND USE ACTIVITIES

The role of this group was to interact with other government agenices, other departments and producer organizations to ensure that the province's land and water resources were allocated to the long-term advantage of agriculture.

Staff participated on numerous committees, and handled referrals that dealt with land use planning for both Crown and patented lands. Staff were also involved with referrals and land reclamation planning associated with energy development.

The following reports were published during the year: *Views on Agricultural Land Development, Potential Areas for Agricultural Expansion Within the Forested Regions in Alberta, Observations on the Influence of Land Use Bylaws on Agricultural Lands in Alberta,* and *Proceedings of the First Annual Western Provincial Conference on Rationalization of Water and Soil Research and Management.*

Considerable effort was spent reviewing draft plans of the eight Regional Planning Commissions and making recommendations to the Alberta Planning Board which is required under The Planning Act to have these regional plans in place by the end of 1983. A tour of the irrigation districts was arranged for the Alberta Planning Board.

Staff provided major input to the interdepartmental resource integration committee, in particular, the committee's review of the eastern slopes policy and four of its integrated management plans. These plans were concerned with allocating Crown land to meet the needs of agriculture, forestry, fish and wildlife habitat, and recreational and energy development.

Computerization of soil survey information and land productivity indices proceeded on schedule.

The division provided support to the Northern Alberta Development Council in its study of agricultural expansion in northern Alberta. Staff assisted the fish and wildlife division of Alberta Energy and Natural Resources in implementation of the "Wetlands for Tomorrow" program. Support was also provided to the Environment Council of Alberta in preparation for hearings on Maintaining and Expanding The Agricultural Land Base in Alberta. The division also co-operated with Alberta Environment in a review of drainage in Alberta.

The agricultural land base steering committee was formed by Alberta Agriculture in co-operation with Alberta Energy and Natural Resources, Environment, Municipal Affairs and Transportation to investigate and make recommendations on the developing and intensifying use of land and water resources for agricultural production. Division staff played a major role in initiating and implementing this effort.

Initiatives were taken in co-operation with the Alberta Institute of Pedology and Alberta Energy and Natural Resources to co-ordinate land classification and inventory activities in Alberta.

The division co-ordinated the first Western Provincial Conference on the Rationalization of Water and Soil Research and Management. The theme of soil salinity attracted 250 delegates from western Canada and the northwest United States.

The following table outlines land development referrals handled by land use activities:

REFERRALS*

(April 1, 1982 – March 31, 1983)

Pipelines	**41**
Transmission Lines	**23**
Coal Mines	**3**
Plants (gas processing,) fertilizer, etc.)	**0**
Annexations (cities, towns, villages)	**19**
Landfill Sites	**22**

*Note – subdivision application referrals to district staff are not included.

IRRIGATION

In 1982 there were 1,087,248 assessed acres on the rolls of the 13 irrigation districts in southern Alberta; however only 903,041 acres were actually irrigated.

Actual Irrigated Acres In Alberta
(Total – All Districts)

1974	707,467
1975	735,000
1976	761,395
1977	849,686
1978	769,928
1979	888,813
1980	852,318
1981	854,146
1982	903,041

A moratorium on servicing of new land remained in place in the Bow River, Lethbridge Northern, and Eastern Irrigation Districts.

An understanding was reached between St. Mary River Irrigation District and Alberta Environment on enlarging of the main canal from Ridge Reservoir, south of Raymond, to Murray Reservoir, south of Seven Persons. Construction on three significant reaches of the canal was completed; detailed studies and design work on five additional reaches were initiated. Foundation testing and detailed studies were completed for the Forty Mile Coulee Reservoir.

Work progressed favorably on the Old Man River flume replacement in the Lethbridge Northern Irrigation District headworks area. Enlargement of the main canal proceeded with the completion of the Rocky Coulee Syphon replacement and commencement of construction on two new reaches. Some delays were experienced with the enlargement of Keho Lake Reservoir as a result of right-of-way negotiations.

The Blood Reserve irrigation project feasibility study was completed with significant input and review by irrigation division staff. Release of the final report was withheld, however, pending on a meeting of the Band Council and senior federal and provincial government officials.

Farm Irrigation Services Branch

Technical assistance to farmers continued at a high level last year. The number of acres of land forming (land levelling) held steady. Farmers spend about $275 per acre to prepare their land for surface methods of irrigation. Sprinkler systems, design and investigation continued to be an area of intense activity.

Development of private irrigation schemes outside existing irrigation districts continued as in previous years. The private sector was utilized in a number of subsurface drainage investigation cases where the client wanted to proceed quickly or did not require detailed investigation and design.

The number of powerline relocation assistance applications increased from 1981-82; however, the program expenditure was only $72,000 as compared with $100,000 the previous year.

The irrigation management program was refined to give better attention to fewer fields. A total of 213 farmer co-operators representing 48,000 acres participated in the program. Emphasis was placed on education of farmer co-operators and program development including development of private industry expertise.

An irrigation pump testing program continued in 1982-83 with 41 tests completed; this compared with 45 last year. In many cases, the recommendations given to the farmer had the potential to reduce his fuel bill by more than $1,000 per season.

Applied irrigation research activities proceeded as in previous years. Crop response studies on water, fertilizer and salt movement were continued. A study of water applied to half-mile border strips was undertaken, and a project was implemented to check the effect of applying fertilizer through an irrigation system (commonly called "fertigation").

Agrometeorological data were collected and related to crop water requirements. Input was provided for basin studies.

Farm Irrigation Services Branch 1977 – 1983
Annual Report Statistical Summary Comparisons

	77-78	78-79	79-80	80-81	81-82	82-83
Acres of land levelled	5,988	3,366	3,785	4,516	3,175	3,262
Sprinkler systems investigated	427	418	573	405	420	560
Water licence feasibility reports	206	112	117	87	112	99
Irrigation scheduling co-operators	88	140	160	185	220	213
Subsurface drainage investigations	–	–	–	39	29	32
Powerline relocation grant applications	–	–	–	19	18	17
Pump tests	–	–	–	–	45	41

Land Classification Branch

Demand for land classification services continued at a high level. The number of requests for land classification for obtaining water rights (Level II) increased over 1981-82 and an active program of supervising consultants and preparing land classification reports for rehabilitation and planning (Level III) continued.

Summary of Land Classification Activities

Agency / Type of Report	Classification For Water Rights (Level II) (individual reports)	District Improvement (Level III)
Land Class Branch	646	164,790 acres
Consultants	46	526,170 acres
TOTAL	692	690,960 acres

Consultants prepared a saline/wetland inventory on 505,000 acres in the Eastern Irrigation District based on Level III reports.

Laboratory measurements and analysis of soil samples were conducted by Alberta Agriculture's soils laboratory and by private laboratories under contract.

Laboratory Measurements and Analysis on Soil Samples

Laboratory	Chemical	Grain Size	Water Holding	Special Analysis	Total
Soils	8,973	927	2,811	1,056	13,767
Private	11,330	171	1,285	52	12,838
TOTAL	20,303	1,098	4,096	1,108	26,605

Research activity continued with reclamation of solonetzic soils and determinations of hydraulic conductivity for major soil series (units of soils classification). Four technical papers were prepared by the staff. A draft of the publication *Manual for Land Irrigability Classification in Alberta* was prepared and land classification standards were reviewed and revised.

Drainage Branch

The drainage branch continued to act as a resource to the farm irrigation services branch consulting with them on on-farm drainage investigations and designs and co-ordinating the accompanying drilling and sampling requirements.

Three Farming for the Future projects, subsurface drainage, wind turbines, and canal seepage control, were supervised. Ongoing studies continued to evaluate the impact of drainage effluent on the Bow River and Milk River systems.

Two major salinity and groundwater studies for the St. Mary River Irrigation and Lethbridge Northern Irrigation Districts, designed to assist with canal seepage control and long range planning, were supervised. Assistance was also given to the Bow River Irrigation and Western Irrigation Districts on evaluating cutoff curtains (vertical plastic sheets adjacent to canals to control seepage). The groundwater component of the Alberta Environment study on the feasibility of irrigating a project area on the Blood Indian Reserve was completed.

In the area of technology transfer, a credit course in drainage was presented to second-year students at the Lethbridge Community College, and a one-week salinity control and drainage course was given to the irrigation specialists. The production of a film on drainage in southern Alberta was also completed. Short courses and lectures were presented to farm groups throughout the year.

Project Planning Branch

The project planning branch continued to provide engineering and planning services as well as support and advisory services to the irrigation districts and Alberta Irrigation Council.

The evaluation and management section monitored 94 irrigation capital works (ICW) projects under construction throughout the 13 irrigation districts and reviewed 78 ICW project reports for submission to Irrigation Council. ICW projects were those intended for rehabilitation, and qualified for funding under the government/district cost-sharing formula. Guidance and assistance in the preparation of contracts and specifications for nine irrigation districts as well as the irrigation division were provided. Assistance was also given to nine irrigation districts with processing of 175 right-of-way, easement and appraisal documents. Planning and design assistance was provided to the Leavitt, Magrath, Mountain View, Ross Creek and United Irrigation Districts. Quarterly publication of the *Water Hauler's Bulletin* continued. In co-operation with the Lethbridge and Medicine Hat community colleges this section prepared and taught two ditch rider training courses attended by 43 participants from seven irrigation districts.

The research section completed another 12.5 kilometres of video inspection of buried pipelines. This was the second year the condition of a selected number of underground pipelines has been inspected with video equipment. Determination of the general state of repair, the maintenance and upkeep needs as well as insights into further installation practices and materials were the objectives of these inspections. Research activities also included design and supervision of a Farming for the Future project intended to develop an economic and relatively impermeable and durable rigid canal lining. All testing of materials and preparatory work for spring construction were finished by year end. A research proposal to test flexible canal lining materials was submitted to the Irrigation Council for approval. Work was started on the inventory of flexible lining sites in southern Alberta. Monitoring of water tables and frost installation penetration was expanded with additional site installations, soil testing and monitoring.

The planning section continued assisting the irrigation districts under the framework of the general rehabilitation plans (GRP). These plans provided guidelines and formulated the basic intentions of each district with respect to priorities, methods, materials and standards to be applied in the repair, upgrading and modernization of their irrigation systems. The target date for completion of all plans was revised to the end of the fiscal year 1984-85. Major emphasis was given to soil and water conservation and management including relocation of canals and/or laterals and seepage control using flexible and rigid canal liners, reinforced concrete linings and pipelines. Field structure inventories were substantially completed for all districts with planning and feasibility studies proceeding as fast as other component inputs were received.

Significant inputs to the general rehabilitation plan were also provided by the planning section with the preparation of individual block planning studies. In total, eight block studies were completed: two for the St. Mary River Irrigation District, two in the Western Irrigation District and four in the Eastern Irrigation District. Thirteen additional block studies were initiated or continued: four for the Lethbridge Northern Irrigation District, two for the Raymond Irrigation District and one each for the Ross Creek Irrigation District, Mountain View Irrigation District, Leavitt Irrigation District, Aetna Irrigation District, Magrath Irrigation District, United Irrigation District, and the Taber Irrigation District.

Other activities during the year included: flow measurements on 30 flow metering stations and major structure calibration (the measurement of water flowing over a sufficient number of drop structures to allow calibration of the flow); inputs to river basin planning studies and feasibility reports prepared or reviewed for Alberta Environment; Blood and Peigan Indian study components inputs and reviews; and forecasts for future funding requirements for total rehabilitation of all irrigation districts.

In the technical services section, major drafting activities over the past year included the preparation of 650 Level II (fairly detailed) land classification plans and 165,000 acres of Level III (more general, less detailed than Level II) land classification maps, 1:20,000 distribution system maps, and assorted drawings for reports, displays and ongoing division programs. In addition, maps showing saline and wetland areas were prepared for 100 townships within the irrigated areas.

The survey unit of the technical services section provided surveys for irrigation capital works projects for the smaller irrigation districts and the drainage branch, and maintained the survey network for the aerial photo mapping program.

Progress on the aerial photo mapping program saw the completion of aerial triangulation contracts for 1,300,000 acres which brought the Raymond extension,

the Foothills Irrigation Districts, Bow River and the northern portion of the Eastern Irrigation District to the data bank stage. Three contracts for digital terrain model mapping, a new method of contour mapping, were completed for the proposed Monarch Reservoir site.

IRRIGATION SECRETARIAT

The legislative authority for the Irrigation Council and the irrigation secretariat is The Irrigation Act, which states in part, "There shall be an Irrigation Council consisting of not less than seven members appointed during pleasure by the Lieutenant Governor in Council," and further "There shall be an Irrigation Secretariat consisting of one or more employees of the Department of Agriculture designated by the Minister. The Irrigation Secretariat is responsible to the Council and shall carry out its functions and duties under the direction and supervision of the Council."

The objectives of the Irrigation Council were to effect a sound irrigation policy for the province, and to act as an advisory body to the Minister of Agriculture. Duties as outlined in The Irrigation Act included the approval of additions or deletions of land to be irrigated to the irrigation districts, the approval of money by-laws, district rates, budgets, and the administration and approval of any expenditure made by an irrigation district under the terms of a cost-sharing agreement entered into by the districts with the Province of Alberta to finance the rehabilitation of the districts' works.

In 1982-83, the Irrigation Council administered cost-sharing agreements with the 13 irrigation districts for a total expenditure of $27,015,000 from the Alberta Heritage Savings Trust Fund under the third year of a proposed five-year rehabilitation program. These funds represented 86 per cent of the aggregate, the remaining 14 per cent being provided by the districts.

The purpose of the program was to rehabilitate and modernize irrigation distribution systems to assure water users of an efficient, adequate and reliable water supply for their crops, to allow for a limited increase of new irrigation as water supplies permit, and to reclaim land lost owing to seepage problems. This program ensured that irrigated areas would be able to increase production by having a reliable and efficiently delivered water supply, thus improving farm income and opportunities for family farm development in the irrigated areas and providing a benefit over-all to the agricultural economy of the province.

To accompany the improvement and modernization program, the Irrigation Council, in its role as the irrigation program committee of Farming for the Future, recommended 17 proposals for approval by the Agricultural Research Council. Capital funding for these projects in the amount of $186,000 to be drawn from the allocation for irrigation rehabilitation of the Alberta Heritage Savings Trust Fund was approved by the committee. The Council also approved $40,000 from the irrigation rehabilitation program for a research project to test flexible liners for southern Alberta irrigation canals.

In 1982-83, the Irrigation Council held 14 meetings including a meeting with the Minister of Agriculture and a special meeting with the Alberta Irrigation Projects Association. Annual tours of 11 irrigation districts were conducted with Irrigation Council and meetings were held with the respective boards of directors to discuss matters of mutual concern. Approval was given for the addition of 12,000 acres to the irrigation district rolls. Seventy-two project reports submitted under the irrigation rehabilitation cost-sharing agreement were approved for a total estimated construction value of $42,753,000.

APPENDIX

Acts Administered by Alberta Agriculture

Agricultural Development Act
Agricultural Pests Act
Agricultural Relief Advances Act
Agricultural Service Board Act
Agricultural Societies Act
Agrologists Act
Alberta Agricultural Research Trust Act
Animal Protection Act
Artificial Insemination of Domestic Animals Act
Bee Act
Beet Lien Act
Brand Act
Crop Liens Priorities Act
Crop Payments Act
Crop Payments (Irrigated Land Sales) Act
Dairy Board Act
Dairy Industry Act
Department of Agriculture Act
Farm Home Improvements Act
Farm Implement Act
Federal-Provincial Farm Assistance Act
Feeder Associations Guarantee Act
Fur Farms Act
Grain Buyers Licensing Act
Grain Charges Limitation Act
Hail and Crop Insurance Act
Harvesting Liens Act
Horned Cattle Purchases Act
Irrigation Act
Irrigation Land Manager Act
Line Fence Act
Livery Stable Keepers Act
Livestock Brand Inspection Act
Livestock Diseases Act
Livestock Injury Act
Livestock and Livestock Products Act
Margarine Act
Marketing of Agricultural Products Act
Meat Inspection Act
Names of Homes Act
Seed-control Areas Act
Seed Dealers Act
Seed Grain Purchase Act
Soil Conservation Act
Stray Animals Act
Surface Rights Act
Threshers' Lien Act
Vegetable Sales (Alberta) Act
Veterinary Surgeons Act
Weed Control Act
Wheat Board Money Trust Act

POOR

QUALITY

ORIGINAL